RULES

FOR THE

GUIDANCE OF RUNNING PILOTS.

RESOLUTION.

THE Lieutenant-Governor is pleased to sanction the following revised rules for the guidance of Running Pilots.

ORDERED—That the rules be circulated.

By order, &c.,

C. W. BOLTON,

Under Secy. to the Govt. of Bengal.

The 13*th February* 1881.

TABLE OF CONTENTS.

			Page.
Chapter	I.	Taking over and relinquishing charge ...	1
,,	II.	Duties of pilots in relation to letters, documents, and reports ...	2
,,	III.	Ditto when in town	5
,,	IV.	Rules of the road on the Hooghly	5
,,	V.	Steam tugs	7
,,	VI.	Rules as to moving vessels	7
,,	VII.	Do. relating to station orders	8
,,	VIII.	Turns	8
,,	IX.	Vessels awaiting orders	8
,,	X.	Rules regarding emigrant vessels and foreign vessels carrying lascars	9
,,	XI.	Do. regarding native passenger vessels	11
,,	XII.	Do. to be observed within port limits	12
,,	XIII.	Miscellaneous rules	15
,,	XIV.	Signals	16
,,	XV.	Customs rules binding upon pilots	20
,,	XVI.	Rules relating to lights and light-vessels	24
,,	XVII.	Do. regarding explosive substances	26
,,	XVIII.	Do. for the investigation of crimes and accidents on the river Hooghly, outside the limits of the port of Calcutta	28
,,	XIX.	Medical inspection and quarantine rules	30
,,	XX.	Rules for officers in pilotage charge carried off to sea ...	31
,,	XXI.	Signs showing force of wind and state of the weather to be entered in log books	33
,,	XXII.	Schedule of offences and punishments prepared in accordance with section 17, Act XII of 1859	34
Appendix	A.	Lloyd's rules	1
,,	B.	Report of casualty	6
,,	C.	Form No. 19 under the emigration rules	6

RULES

FOR THE

GUIDANCE OF RUNNING PILOTS.

CHAPTER I.—TAKING OVER AND RELINQUISHING CHARGE.

1. No pilot shall take charge of an outward-bound vessel without an order signed by the Port Officer, or his assistant.

2. If the master of a vessel, whether inward or outward bound, refuses, without adequate reason, to receive a leadsman, the pilot shall take the orders of the Port Officer, or of the senior officer at the Sandheads, before proceeding in charge of the vessel.

3. If the pilot appointed to take a vessel to sea during spring-tides in the freshets considers that to do so would involve a risk and responsibility which he is unwilling to take, he should lose no time in communicating the fact to the master or agent, and reporting to the Port Officer for orders, fully explaining the grounds of his objection.

4. If the pilot on taking charge of a vessel within the boundary of the port finds that she is at single anchor and not in charge of a harbour-master, or that the master has not a written permission from a competent authority for so anchoring her, he shall not move her, but shall at once report the circumstances to the Port Officer.

5. A pilot on receiving an order to take charge of a vessel outward bound, shall proceed on board with all convenient despatch, and shall, before taking charge, ascertain from the master if she is provided with the equipment required by Chapter XVI of these Rules and Lloyd's* Rules as to lights, ground tackle, &c.

If such equipment be deficient to the extent of involving risk to the vessel on her passage down the river, the pilot shall decline to take charge, and shall forthwith report to the Port Officer his grounds of refusal; but if these on investigation prove insufficient to warrant the pilot's action, he shall be liable to such punishment as the Government may determine.

The pilot shall ascertain that the vessel has two serviceable bower anchors; and, if she has not a sheet or spare anchor fit for a bower over her side, that she has one in such a position on deck that it can easily be brought into use in case of necessity. Should a vessel lose one of her three bower anchors after leaving Garden Reach, she need not be stopped on that account, if the master wishes to proceed, and the pilot considers it safe to do so.

6. The pilot, on taking charge of an outward-bound vessel, shall ascertain her correct draught, and forward the draught-certificate, signed

* *See* Appendix A.

by himself and the master, to the Port Office. The vessel may proceed before the despatch of the certificate, if the master undertakes that it shall be forwarded by the first opportunity, before the vessel leaves pilotage waters. If a vessel takes in cargo at any place on her way down the river so as perceptibly to alter her draught, the pilot shall forward an amended certificate signed as above, certifying it to be correct, and noting the place where such cargo was taken on board.*

7. When the pilot appointed to take down a vessel having on board pilots proceeding to join the Station does not take charge in time to enable the vessel to leave at the time fixed, the pilot of the turn (according to tonnage) among the pilots on board shall take charge.

Vessels showing signals of distress.
Men-of-war.
Troop-ships.
Government vessels.

8. Pilots on their way down to supply the station, are prohibited from taking charge of any vessel above Saugor, except those noted in the margin.

9. No pilot shall take charge of an inward-bound vessel at the Sandheads without an order from the commander of one of the pilot brigs.

10. The pilot shall not give over charge of his vessel in the river unless she has been moored, or he has been relieved by a harbour-master or other officer authorized to take charge.

11. The pilot shall use his utmost diligence to complete the service for which he is appointed, and shall not relinquish charge of a vessel, unless on account of sickness or other unavoidable necessity, before completion of the service. If he is, in any way, impeded in the performance of his duty, he should report the circumstance to the Port Officer.

12. No pilot on his way to or from the station on his own account shall pass a vessel in the river ten or more miles below Calcutta, which may have a signal for a pilot flying, without going on board; and if the vessel is inward-bound, he shall offer to take charge. Should the vessel be outward-bound, he shall endeavour to ascertain the cause of her being without a pilot; and if he shall have reason to think that she has been regularly cleared, and that she had a pilot when she left Calcutta, who has quitted her from any cause, he shall offer to take charge and conduct her to sea. He shall in any case report the particulars of the occurrence to the Port Officer by the first opportunity.

13. No pilot shall interfere with the pilotage charge of another pilot without his consent, except in the case of a vessel in charge of a leadsman of any grade, when any pilot may, if he think fit, supersede such leadsman.

Chapter II.—Duties of Pilots in relation to letters, documents, and reports.

Section 1.—General.

1. Pilots going down shall receive all official documents that may be sent to them by the Port Officer for conveyance to the Sandheads, and shall deliver them immediately on arrival.

---

* *See*, however, Chapter XV of these Rules.

12*A*. The commander of one of the pilot brigs may, if there is no pilot available at the Sandheads, in order to prevent serious detention to vessels, at his discretion, place any leadsman who has passed the second mate's examination, and whom he considers in other respects competent, in charge of any inward-bound vessel not exceeding 800 tons burthen. Provided that—

(1)—No leadsman shall be placed in charge of any vessel whose draught exceeds 14 feet, except for the purpose only of conveying her into Saugor Roads; and no leadsman shall proceed in charge of such a vessel beyond the Apex buoy.

(2)—Except in circumstances of extreme urgency, no leadsman shall be placed in charge of any vessel at night or during bad weather.

(3)—Every case in which a leadsman is appointed to have charge of any vessel shall at once be reported to the Port Officer, with an account of the circumstances which rendered such appointment necessary.

12*B*. No unpassed leadsman shall, under any circumstances whatever, be placed in pilotage charge of any vessel.

2. Pilots coming up shall receive all official letters for town given to them by the commanders of the pilot brigs or light-ships.

3. The pilot, before giving over charge of an outward-bound vessel at the Sandheads, shall cause the quitting certificates to be filled up and signed by the master, and shall sign them himself, and, after noting the date of delivery on the reverse, shall make them over to the commander of the pilot-vessel that takes him out.

4. The pilot of an inward-bound vessel shall forward the inward certificates complete to the Port Office immediately on his arrival at Calcutta.

5. Certificates from vessels of H. M.'s Royal Navy shall always be in quadruplicate.

6. The pilot of an inward-bound vessel shall, on arrival in town, after having reported himself, enquire if the report of the vessel he brought up has been received in the Port Office.

7. Every pilot on arrival in Calcutta, shall report to the Port Office the number of pilots at the station when he left; and shall also report (as indicated in the arrival report) what vessels, both outward-bound and inward-bound, he passed on his way up from the Sandheads to town.

8. The pilot of a vessel arriving in ballast shall insert in the inward certificate the words "in ballast."

9. The pilot taking charge of a vessel at sea shall, before leaving the brig, provide himself with copies of the following papers, which he shall hand over to the master of the vessel immediately on his boarding her:—

Inward Manifest form, with cover.
Store list.
Port rules.
Hospital admittance memorandum and forms.
Arrival Report.
Two letters to Postmaster, Diamond Harbour, with covers.

The pilot shall see that these papers are properly filled up and disposed of according to rule. Should there be more passengers on board than the column in the "arrival report" intended for the names will contain, a separate sheet must be attached, with the names of the passengers, and a note made in the column "see attached list."

10. If when a pilot is appointed to a vessel, she does not leave Calcutta within two days subsequent to the date of his appointment, he shall report the circumstance to the Port Officer, and forward the master's opinion as to the probable date of departure. If the vessel's departure is delayed beyond the time so specified, the further delay shall again be similarly reported.

11. The pilot in charge of a vessel detained for three days at Saugor, or any other part of the river below Calcutta, shall report and explain the cause; and make fresh report for every subsequent three days' detention.

12. If a vessel loses an anchor or anchors, the pilot shall, as soon as practicable, report the circumstance officially to the Port Officer. The report should be attested by the master of the vessel, and, to

enable the Port Officer's Department to identify the lost articles, it shall indicate accurately the following particulars :—

(1) Locality of the loss.
(2) Bearings of known objects.
(3) Description, weight, and distinctive marks of anchors.
(4) Description and quantity of cable.

13. Should a vessel ground, collide with any vessel or buoy, or meet with any casualty while under weigh or at anchor, the pilot shall, on the first opportunity, forward to the Port Officer a report of the occurrence, containing the following particulars :—

(1) Locality of the accident.
(2) Bearings of any known fixed objects in view.
(3) The vessel's draught of water.
(4) The time of tide.
(5) Hour of the day the accident occurred.
(6) Manœuvre the pilot was executing, or attempting to execute, at the time.
(7) The damage, if any, sustained.
(8) The time the vessel was on shore.
(9) Quantity of water made by the vessel.

This report should be attested by the master. Steam-tug pilots should report the circumstances, as far as these may come within their knowledge, of grounding or collision or other accident occurring to any vessel they may have in tow. In addition to the foregoing, casualty reports in Lloyd's form* (supplied to each pilot) shall be submitted.

Should the master decline to sign the pilot's report, he should be requested to enter at foot his grounds for refusal; if he declines to state these, then to note in writing the fact that he so declines; and if this be also refused, the pilot, taking his leadsman to witness, should note such refusal at foot, over his own signature and that of his witness.

14. Pilots sending public letters through the post shall write the words "service bearing" on the right-hand upper corner, and frank them on the left-hand lower corner, as shown in the specimen form given in the margin; failing which, they will be debited with the postage incurred.

Service bearing.

To the Port Officer,
Calcutta.

Signature of sender.

15. The pilot of an inward-bound steamer shall warn the master that he must land any mails addressed to Diamond Harbour at that station, and bring all other mails to Calcutta, unless specially required by the postmaster of the above station to land them at that place.

16. All pilots in charge of vessels shall afford every facility to dâk boats coming alongside.

Section 2.—Telegraph Reports.

17. The pilot in charge of a vessel shall stop and communicate with any telegraph station that has the red, or imperative, flag

* Appendix B.

hoisted; but if the white, or negative, flag be hoisted, it is optional with the master of the vessel to stop and communicate or to proceed.

18. The pilot in charge of an inward-bound Indian Government vessel, or of any of Her Majesty's ships, or any foreign man-of-war, shall report by telegraph from the first station the vessel's arrival and port of departure.

19. The pilot shall telegraph to the Deputy Quartermaster-General of the Army from the first station the number of troops, camp-followers, guns of every description, and Government horses or other animals on board any inward-bound vessel.

20. The pilot shall telegraph from the first station any accident that may happen to the vessel under his charge.

Chapter III.—Duties of pilots when in town.

1. Pilots on arriving in town shall enter their names, with date and hour of arrival, in the book kept in the office for that purpose.

2. Pilots shall attend daily at the Port Office. They shall reside in Calcutta, and not leave it without permission of the Port Officer.

3. Any pilot living beyond the limits of town, with the permission of the Port Officer, shall keep a peon (with a badge bearing his master's name) in daily attendance at the Port Office.

4. Pilots, whilst in town, should inspect carefully and daily the several channel and general order books kept at the Port Office, and note, for guidance, all orders and instructions entered in them.

Chapter IV.—Rules of the Road on the Hooghly.

Section 1.—Rules as to speed and mode of Navigation.

1. Every steam-vessel in charge of a pilot shall be navigated with care and caution, at a speed and in a manner which shall not endanger the safety of other vessels. Special care and caution shall be used in navigating the vessel when passing vessels employed in removing sunken vessels or other obstructions.

2. Every steam-vessel when approaching another vessel so as to involve risk of collision, shall slacken her speed, *or stop and reverse, if necessary.*

3. If two steamers, with or without vessels in tow, meet in a narrow channel, or in a place where the presence of a third vessel makes it difficult to pass, the one going against the tide shall slacken her speed until the other has cleared the difficulty.

4. Every sailing-vessel or steam-vessel overtaking any other vessel shall keep out of the way of the overtaken vessel, and the latter shall keep her course.

5. When two steam-vessels are in sight of one another, and are approaching with risk of collision, the following steam signals shall be intimations of the course they intend to take:—

(a) *When intending to pass port-side to port-side*—One short blast of the steam-whistle, of about three seconds' duration, shall mean—"I am directing my course to starboard, and intend to pass you port-side to port-side." The use of this signal shall be optional.

(*b*) *When intending to pass starboard-side to starboard-side.*—Two short blasts of the steam-whistle each of about three seconds' duration shall mean—"I am directing my course to port, and intend to pass you starboard-side to starboard-side."

The latter signal shall not be used in the case provided by rule 10 when that rule can be obeyed; but it shall be compulsory to use this signal when a departure from that rule is necessary to avoid immediate danger.

6. When it is unsafe or impracticable for a steam-vessel to keep out of the way of a sailing-vessel, she shall signify the same to the sailing-vessel by four or more blasts of the steam-whistle in rapid succession, the blasts to be of about two seconds' duration.

7. The signals by whistle mentioned in the preceding rules shall not be used on any occasion or for any purpose except those mentioned in the rules, and no other signal by whistle shall be made by any steam-vessel unless it be by a prolonged blast of not less than five seconds' duration.

Section 2.—Steering and Sailing Rules.

8. When two sailing-vessels are approaching one another so as to involve risk of collision, one of them shall keep out of the way of the other, as follows, viz:—

(*a*) A vessel which is running free shall keep out of the way of a vessel which is close-hauled.
(*b*) A vessel which is close-hauled on the port tack shall keep out of the way of a vessel which is closed-hauled on the starboard tack.
(*c*) When both are running free with the wind on different sides, the vessel which has the wind on the port side shall keep out of the way of the other.
(*d*) When both are running free with the wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is to leeward.
(*e*) A vessel which has the wind aft shall keep out of the way of the other.

No regard is to be had to the seniority of the pilots in charge.

9. If a sailing-vessel and a steam-vessel are proceeding in such a direction as to involve risk of collision, the steam-vessel shall keep out of the way of the sailing-vessel. If the steam-vessel cannot keep out of the way, she shall signify the same as provided in Rule 6.

10. When two steam-vessels proceeding in opposite directions, the one up and the other down the river, are approaching one another so as to involve risk of collision, they shall pass one another port-side to port-side.

11. When by the above rules, one of two ships is to keep out of the way, the other shall keep her course.

12. Whenever there appears to be any danger of a collision owing to sudden shifts of wind, the junior pilot shall, in order to secure unity of effort, obey the orders of the senior.

13. In obeying and construing these rules due regard shall be had to all dangers of navigation; and to any special circumstances which may render a departure from the rules necessary in order to avoid immediate danger.

Chapter V.—Steam Tugs.

1. Steam tugs, without vessels in tow, may move at night in any part of the river outside the limits of the port at their own risk and responsibility.

2. No vessel shall be taken in tow by a steamer if the latter has not a pilot or steam-tug pilot in charge, unless the steamer lashes alongside. In that case the pilot of the vessel may, if he think she can be safely towed in that manner, allow her to be so taken in tow, but the consent of the master must always be specifically obtained in writing to such mode of towage.

3. No steam tug shall take two vessels in tow, save with the consent of both the master and the pilot of the vessel that first engaged the tug.

Chapter VI.—Rules as to moving vessels.

1. Until further orders, pilots shall be guided by the following rules as to the draughts at which vessels may or may not be moved :—

1st.—They may move vessels inward or outward, without steam, at any draught not exceeding 20 feet.

2nd.—They may move vessels inward or outward, with steam, at any draught not exceeding 22 feet.

3rd.—Junior master and mate pilots may take charge of inward-bound vessels of any draught at the pilot station, but they are strictly prohibited from piloting any vessel over 22 feet draught higher than Saugor, and from piloting any such vessel from town, without applying for and receiving the special permission of the Port Officer.

4th.—A pilot may not move a vessel between Calcutta and Saugor, either outward or inward bound, without the aid of steam, if she is drawing more than 20 feet, unless, in the absence of a steamer, it becomes necessary to change her anchorage for safety.

5th.—Below Saugor a pilot may use his discretion as to moving an outward-bound vessel drawing more than 22 feet.

2. Vessels may not be under weigh at night in the following positions :—

First.—Within the boundaries of the port as laid down in the notification prefixed to the Port Rules.

Second.—Between Gewankolly Temple and Fultah Point, or over the James and Mary, under any circumstances.

Third.—Between the upper part of Saugor Roads and Mud Point, under any circumstances.

No vessel may be moved at night in other parts of the river above Saugor Roads without the master's consent signified in writing in the following form :—

To Mr , Pilot of the

Sir,—I request you will keep the under weigh as long as in your opinion you can do so in safety; and I hereby hold this vessel responsible for any damage that she may do to any other vessel lying at anchor, showing lights according to the rules of the port.

3. Within three days of the full moon or change of the moon, no sailing vessel drawing more than 12 feet shall attempt to pass the James and Mary inward-bound on the flood, before half-tide, unless in tow of a steamer.

Chapter VII.—Rules relating to station orders.

1. Pilots' names shall appear in station orders in the order of their turns according to grade.

2. Any pilot who, after receiving a station order, does not comply with it, shall, unless he produces a medical certificate from the Marine Surgeon, or other certificate to the satisfaction of the Port Officer, be considered absent without leave until he has reported himself to the senior officer at the Sandheads, and shall then be required to furnish an explanation of his neglect to obey the order in proper time. Should this explanation be unsatisfactory, he shall be liable to be tried for disobedience of orders.

Chapter VIII.—Turns.

1. Outward-bound pilots' turns shall be determined (according to grade) :—

In the south-west monsoon—in order of their passing a line east or west of the Eastern Channel light-vessel.

In the north-east monsoon—in the order of their being taken out by the Buoy station vessel.

2. In cases where the foregoing rules cannot be made applicable, the senior pilot commanding the station shall assign the turn.

3. Pilots carried off the station by stress of weather or other cause beyond their control, on return to the station from sea, shall take up the turn they would have had if not carried off.

4. Rule 3 shall apply also to pilots supplying the station at their own expense.

5. Turns in town shall be regulated according to grade in order of arrival.

6. Pilots reverting to the town list from cancelled orders shall take the last turn of their grade.

7. A pilot in charge of a vessel taking down a station party shall take turn before pilots of his grade of such station party.

Chapter IX.—Vessels awaiting orders.

1. The pilot in charge of an inward-bound vessel awaiting owners' orders at Saugor or elsewhere in the pilotage of the Hooghly, shall report the fact by telegraph to the Port Officer, with the name of the vessel's Calcutta consignee, and shall not relinquish charge without orders from the Port Officer, unless furnished by the master with a written statement that his services are not required. In this case the vessel shall be moored with not less than 30 fathoms of cable each way before the pilot quits her.

But if the ship's detention has been caused by an accident happening before the pilot has taken charge, he shall take his original place on the list, subject to any orders that have been issued in the meantime.

Chapter VIII.

Rule 8.—The following are the rules to be observed in supplying vessels with pilots at the Sandheads:—

a.—All vessels are to be supplied (according to tonnage) with the pilot of the turn, his vessel being that one of his grade which comes first within reach of the pilot-brig. This rule applies only when there are pilots sufficient for the vessels on the station.

b.—Vessels in excess of the pilots available are to be supplied according to time of arrival. If any come in at night, and their turns are not known, they are to be supplied as nearly in turn as possible.

c.—A pilot is not to be kept for a ship, having the turn, which has gone off the station, or by force of circumstances (tide, wind, &c.) cannot be reached that day; such a ship is to get the first on turn at the time she can be supplied.

d.—All steamers take precedence of sailing vessels.

e.—When the supply of pilots is deficient, and any second or first mates are available, these latter are to be retained till all the running pilots are disposed of, and then may take charge of any vessels of their tonnage at the discretion of the senior officer.

f.—As vessels of all classes are entitled to a qualified pilot, if available, and it may happen that a senior pilot would have to take charge of a very small vessel when one of a heavy draught or large tonnage would be detained, the commander of a brig is allowed discretionary power, when necessary, to retain the senior for the large or heavy ship, although arriving after the small one, and to place a second mate in charge of the latter.

No delay is admissible in appointing a pilot to a ship that has by her position become entitled to one.

Chapter VIIIa.—Applications.

1. Applications are only allowed to hold good for seven days in the case of a branch pilot, and three days in that of all other pilots. No pilot for whom an application has been filed is liable to be ordered off on station or other duty if there is a sufficient number of pilots without applications on the list and available for duty.

2. A pilot in town, for whom an application has been filed, is bound to wait till the ship to which the application refers is ready to start, and may not, in the meantime, take away any other vessel.

3. A pilot may not return from the Sandheads to take up an application which he knows will be made for him unless the minimum number of pilots (which has been fixed at 12) is available outside, and unless he actually produces the application.

4. If a pilot returns from the Sandheads on an application, and finds that the vessel to which the application refers will not leave for some time, he is not allowed to take another ship down, but must either wait for that vessel, or return to the Sandheads at his own expense. If the vessel applying for him shall have sailed in his absence, he cannot take another down, but must return to the Sandheads before he can put in another application.

5. Applications may not be filed for any pilot within seven days of his filing a medical certificate or application for leave.

6. Application on behalf of an outward-bound vessel is limited to a request for the services of the pilot who brought the vessel up the river; and if an application be not put in for him, or he be not available, the pilot of the turn in Calcutta shall take the vessel to sea.

2. The pilot in charge of a vessel as above shall, in no case, conduct her to sea without direct orders from the Port Officer. A pilot infringing this rule shall forfeit his pilotage.

3. If there is a scarcity of pilots at the Cruising Station, vessels shall be supplied in the following order of precedence:—

Vessels showing signals of distress.	Foreign ships-of-war.
H. B. M.'s ships of-war.	Mail steamers.
Troop-ships.	Steam vessels.
Indian Government vessels.	Sailing vessels.

4. The senior pilot shall be appointed to the following vessels:—

Vessels showing signals of distress.
H. B. M.'s ships-of-war above the size of a gun-boat.
Indian Government vessels of the class of the *Tenasserim* and upwards.
Indian Government vessels of any class having on board—

The Viceroy and Governor-General;
Governor of Bombay;
Governor of Madras;
Lieutenant-Governor of Bengal;
A Chief Commissioner.

Foreign men-of-war.

For the purposes of this rule the words "senior pilot" shall be taken to mean—

1. The branch pilot of the turn.
2. The senior master of the turn, when no branch pilot is on board.
3. If there are neither branch nor senior master pilots on board, then the senior according to the gradation list of the junior masters and mates.

Chapter X.—Rules regarding Emigrant Vessels and Foreign Vessels carrying lascars.

1. No pilot shall leave Calcutta in charge of an emigrant vessel during the freshets between the second day of spring-tides and the third day of neaps.

2. The pilot in charge of a vessel with return emigrants on board shall moor her as near as possible to the emigration landing-stage, Garden Reach, between Neemuck Mehal Ghât and the I. G. S. N. Company's yard.

3. In the event of serious sickness, not of the kinds referred to in the "Medical Inspection Rules," existing on board any vessel with return emigrants, the pilot will represent to the master the necessity of taking steam. Should the master refuse to do so,

the pilot is empowered to engage a steam tug, the cost of which will be adjusted by the Emigration Agent on the arrival of the vessel in town.

4. The masters of all vessels bound for emigration* ports, and having no native passengers on board, are required to certify to that effect on applying for port-clearance. In such cases the Collector of Customs will write in red ink across the port-clearance as follows:—"The master of this vessel having declared that he has not, and will not take on board, any native passengers, the pilot of the vessel will, in the event of any attempt being made to take on board such passengers, stop the vessel and report the circumstances."

* Mauritius.	St. Kitts.
Seychelles.	Nevis.
Réunion.	Natal.
Jamaica.	Fiji Islands.
British Guiana.	St. Croix.
Trinidad.	Martinique.
St. Lucia.	Guadaloupe.
Grenada.	French Guiana.
St. Vincent.	Surinam.

The pilot in charge of any such vessel shall accordingly, in the event of native passengers being taken on board after the vessel has obtained port-clearance, stop her, and report the circumstances to the Port Officer.

5. Sections 52 and 80 of the Indian Emigration Act are quoted below for the information and guidance of pilots:—

Section 52.—The master of every vessel carrying emigrants from the port of Calcutta shall proceed on his voyage and depart with his vessel from Garden Reach within 24 hours after the embarkation of such of the emigrants as shall have first embarked.

Section 80.—If the master of a vessel sailing from the port of Calcutta, licensed under section 40 and sailing with emigrants on board, without reasonable excuse causes or allows his vessel to proceed from Garden Reach to sea, or to proceed any part of the distance between Garden Reach and sea, without his vessel being under tow of a competent steamer;

or if such vessel has not left Garden Reach and proceeded on her voyage within the time prescribed in section 52;

the master of such vessel shall be liable to a fine not exceeding Rs. 1,000.

6. Under the above Act the following rules have been passed for the guidance of pilots:—

87. After embarkation, pilots and preventive officers are required to see that none but those entered in the list of passengers and crew (Form No. 19, Appendix C) remain on board, and that no other persons are received on board subsequently.

88. Commanders are required to afford to the pilots and preventive officers every assistance in their power in carrying out the separate instructions with which they are charged.

7. With the view of checking any attempt by masters of foreign vessels to evade the requirements of section 26, Act IV of 1875, and sections 115 and 117 of Act I of 1859, in regard to the shipping of lascars for service on board foreign ships, the pilot in charge of any outward-bound foreign vessel having natives of India on board as part of her crew, shall call for the ship's articles, and, if such natives are not shown in the articles to have been shipped through the Calcutta Shipping Office, shall detain the vessel, reporting the matter at once to the Port Officer for communication to the Shipping Master.

Chapter XI.—Rules regarding Native Passenger Vessels.

1. The pilot in charge of any inward or outward-bound steamer carrying over 60 native passengers, or of any sailing vessel carrying over 30 native passengers, such steamer or vessel being one to which the provisions of Act VIII of 1876 apply, shall, on taking charge, satisfy himself that the certificates required under the Act are put up in a conspicuous part of the ship. If they are not so put up, or if the master fail to produce them, the pilot shall report the circumstance to the Port Officer. In the case of an inward-bound vessel such report shall be sent by telegraph from the first station passed. In the case of an outward-bound vessel, if the pilot only becomes aware of the number of passengers being such as to require certificates under the Act after the vessel has left Calcutta, and no certificate is forthcoming, he shall stop the vessel and report by telegraph from the first station passed.

2. Pilots should make themselves acquainted with the following sections of Act VIII of 1876:—

2. It extends to the whole of British India and applies—

(a) to all subjects of Her Majesty within the dominions of Princes or States in India in alliance with Her Majesty;

(b) to all Native Indian subjects of Her Majesty without and beyond British India; and

(c) subject to the exceptions mentioned in the subsequent part of this section, to vessels carrying more than thirty passengers, being natives of Asia or Africa.

Nothing herein contained applies—

(d) to any ship-of-war or transport belonging to or in the service of Her Majesty;

(e) to any ship-of-war belonging to any Foreign Prince or State;

(f) to any sailing vessel not carrying as passengers more than thirty natives of Asia or Africa;

(g) to any steamer not carrying as passengers more than sixty of such natives;

(h) to any sailing-vessel or steamer not intended to convey passengers to or from any port in British India.

Not to sail without two certificates.

9. No ship intended to carry passengers shall commence any voyage from any port or place appointed under this Act, unless the Master holds two certificates to the effect hereinafter mentioned.

Port-clearance.

And the officer of Government whose duty it is to grant a port-clearance for such ship shall not grant the same unless the Master holds such certificates.

Contents of certificate A.

10. The first of such certificates (hereinafter called 'certificate A') shall state that the ship is seaworthy and properly equipped, fitted, and ventilated; and the number of passengers that she is capable of carrying.

Contents of certificate B.

11. The second of such certificates (hereinafter called 'certificate B') shall state—

(a) the voyage which the ship is intended to make, and the intermediate ports (if any) at which she is intended to touch;

(b) that she has the proper complement of officers and seamen;

(c) that provisions, fuel, and pure water, over and above what is necessary for the crew, and the other things (if any) prescribed for the ship by rule under section forty-six, have been placed on board, of the quality prescribed by rule under the same section, properly packed, and sufficient to supply the passengers on board during the declared duration of the intended voyage, according to the scale for the time being prescribed by rule under the same section;

(d) that the Master holds certificate A;

(e) if she is intended to make a short voyage in a season of foul weather, and to carry upper-deck passengers, that she is furnished with substantial bulwarks and a double awning or other sufficient protection against the weather;

(f) such other particulars (if any) as may for the time being be required for such ship under this Act.

Copy of certificate to be exhibited.

17. The Owner or Master shall put up in a conspicuous part of the ship, so as to be visible to persons on board the same, a copy of each of the said certificates granted by an officer appointed under this Act in respect of the ship, and shall keep such copies in such position during the voyage.

3. The pilot in charge of any vessel from the Red Sea, Persian Gulf, or Coast of Arabia, shall telegraph from Saugor to the Commissioner of Police, if he observes on board any persons whom he may suspect to be slaves, either among the crew or passengers.

Chapter XII.—Rules to be observed within port limits.

1. No pilot shall turn a vessel within the limits of the port above the Lower College Sand Buoy.

2. Every vessel under charge of a pilot anchoring within the limits of the port shall be moored, unless it is intended to weigh on the next tide.

3. The pilot is strictly forbidden to leave the vessel of which he is in charge in the free channel provided for by Port Rule 23, quoted on page 14. If circumstances compel him to anchor a vessel in this channel, he shall not quit her until she is removed, or he is relieved by a Harbour Master.

4. Port Rule 5, quoted below, shall be observed both in the case of inward-bound vessels and outward-bound vessels.

5. The pilot in charge of a vessel arriving off Kidderpore under circumstances of wind, tide, or steam permitting her to proceed above Fort Point, may, if no Assistant Harbour Master be available, proceed up and anchor in any clear berth that the master approves, taking care that the vessel is properly moored with not less than 30 fathoms of cable each way.

6. Vessels of 300 feet length and upwards shall not be taken above Prinsep's Ghât.

7. The following Port Rules demand the special attention of pilots:—

Vessels not to move at night.

1. No vessel of the burthen of 200 tons or upwards shall enter the port or move from one place to another within the port, between sunset and daybreak without the special permission of the Commissioners: provided that a vessel which has entered the port before sunset may at once proceed to a safe anchorage

at any part of the port not higher than Prinsep's Ghât. No vessel shall be moored or anchored abreast of the Peninsular and Oriental Company's premises without the permission of the Commissioners.

Exception in favor of steam-tugs.

2. Steam-tugs having no vessel in tow shall be permitted to enter the port after sunset at their own risk, but they shall not proceed above Chandpaul Ghât. Steam-tugs shall be held liable for any damage which they may cause by moving at night.

Vessels not to move up on the flood or down on the ebb.

* 3. No vessel of the burthen of 200 tons or upwards shall steam, sail, or be towed up on the flood or down on the ebb within the port above the house of the Superintendent, Government Botanical Gardens, without the special permission of the Commissioners; and in cases where such permission is granted, the officers in charge shall be held strictly responsible for accidents which may occur in consequence of their taking the vessels up or down at a greater speed than is absolutely necessary in order to keep them under command; and in every case where such permission is granted the speed of the vessel shall not exceed four miles an hour through the water.

Speed of vessels restricted.

4. No vessel shall steam, sail, or be towed up on the ebb or down on the flood within the port at a speed greater than four miles an hour over the ground.

Vessels dropping up or down.

5. Vessels may at all times drop up or down the port with their anchors on the ground. Steamers of the Peninsular and Oriental Company, or of the Messageries Maritimes, and any other vessels specially permitted to start with the ebb, are prohibited from turning out from their moorings while vessels are dropping down the Reach, but the Deputy Conservator and Harbour Master shall, as far as possible, prevent vessels from dropping down at the time the Peninsular and Oriental Company's steamers and Messageries Maritimes' steamers are about to turn and proceed down the Reach. Pilots and Assistant Harbour Masters having charge of outward-bound vessels are forbidden to pass below the India General Steam Navigation Company's jetty on an ebb tide whilst the Assistant Harbour Master's flag is flying on board any of the outward steamers belonging either to the Peninsular and Oriental Steam Navigation Company or Messageries Maritimes, and they are not to commence dropping their vessels again until the steamer has turned and proceeded fairly down the Reach.

Vessels entering the port on neap tides.

6. Vessels entering the port at neap tides during the freshets are permitted to come up at slack water at a speed not exceeding four miles an hour over the ground.

River and tug-steamers exempted.

7. River-steamers and tug-steamers having no vessels in tow are permitted to move up on the flood or down on the ebb at their own risk, and at a speed sufficient to keep the vessels under command; but in no case shall the speed exceed four miles an hour through the water.

9. No steam vessel shall proceed at a greater rate of speed than four miles an hour when inside the moorings, and no steam vessel shall proceed at a greater rate of speed than four miles an hour anywhere within the port after dark.

Vessels in the stream to keep a clear hawse.

17. All vessels moored in the stream shall keep a clear hawse.

Moorings not to be occupied without Commissioners' permission.

18. No vessels shall use any of the moorings, whether fixed or swinging, without permission of the Commissioners.

Vessels arriving in the port to rig in the jib and driver booms.

20. All vessels on arrival in the port shall rig in their jib and driver booms, and shall keep them so rigged in until the pilot takes charge of the vessel at Garden Reach for the purpose of taking her to sea. They shall also strike their yards and masts when ordered by the Commissioners. Vessels proceeding to the jetties shall remove all boats and other projections likely to damage the jetties and cranes.

---

* With reference to Port Rule No. 3, the following instruction for the guidance of Assistant Harbour Masters is published for general information:—

Assistant Harbour Masters are forbidden, without a special order from the Harbour Masters' Office, to turn outward-bound vessels until they are below the Lower College Sand Buoy.

Rules for regulating striking of yards and masts.

21. From the first day of May until the 30th day of June, and from the first day of October to the 15th day of November, all vessels in the port shall have their royal and top-gallant yards on deck, and mast ropes rove in readiness to send the top-gallant masts down at short notice when required, that is, when the storm warning signal (*double cone*) is displayed; and shall send down their top-sail yards and house top-masts when the storm signal (*drum*) is hoisted, or when ordered to do so by the Commissioners. Vessels about to leave the port may send their top-gallant yards aloft 24 hours before leaving the moorings. Vessels entering the port between the above dates, having top-gallant masts and yards aloft, may be placed in moorings, and the top-gallant yards of such vessels shall be sent down within 24 hours after they are moored.

Additional precautions to be taken on approach of bad weather.

22. On the occurrence of signs of an approaching cyclone, a black drum will be hoisted during daylight from the flagstaff on the roof of the Sailors' Home, Bankshall Ghât, and another from the flagstaff at the Government Dockyard, Kaddeypore. During the night, under similar circumstances, four bright lights in a square will be exhibited from the same flagstaffs, one at each yard-arm. When these signals are displayed, masters of vessels shall immediately take every additional precaution in their power to make the vessels snug and secure; they shall stow their top-gallant masts on deck below the rails, and shall have awnings furled and the lower and top-sail yards counterbraced or pointed to the wind, if not struck. The cables shall be bent to both bower anchors when possible.

STORM SIGNALS.

	Day.	*Night.*
This signal means cyclone probable; look out; send down royal and top-gallant yards; rove mast ropes; furl awnings	A black double cone ...	Three lights in a triangle.
This signal means cyclone approaching; carry out the instructions laid down in Port Rule No. 19	A black drum ...	Four lights in a square.

Free channel of 200 yards to be kept.

23. A free channel of not less than 200 yards width shall be kept for ships moving up or down the river in the port, and also free passages to piers, jetties, landing-places, wharves, quays, docks, and moorings; and all vessels shall move when ordered to clear such channels or passages.

Vessels anchored or under weigh in the port to show lights between sunset and sunrise.

24. All vessels anchored in the stream within the port shall exhibit between sunset and sunrise, where it can best be seen, but at a height not exceeding twenty feet above the hull of the vessel, a white light in a globular lantern of eight inches in diameter, and so constructed as to show a clear, uniform, and unbroken light visible all round the horizon, and at a distance of at least one mile. Vessels under weigh at night shall show the lights prescribed by the Board of Trade's Regulations.

Cargo and other boats to carry a light.

25. All coasting vessels, cargo-boats, bhurs, budgerows, up-country boats, and passenger-boats, when under weigh on the river after dark within the limits of the Port, shall carry a white light in a lantern in the forepart of the vessel, where it can be distinctly seen; and all steam vessels shall show when under weigh the lights prescribed by the Board of Trade's Regulations.

Measures to be taken by vessels on the occurrence of a fire.

26. When fire has broken out in any vessel, the officers in charge of all vessels in neighbouring moorings or anchorage shall furl their awnings, get their force-pumps ready for use, and prepare for slipping their cables and chains, seeing specially that the pins of the shackles can be immediately knocked out.

Lying at single anchor prohibited.

27. No vessel shall lie at single anchor in the port unless a Pilot or Assistant Harbour Master is on board.

Penalties.

28. Any person committing an infringement of any of the foregoing Port Rules is liable to the penalties prescribed by the Act.

Special Rule.

63. The provisions of sections 38, 39, 40, 41 of the Act have been specially extended to the Port of Calcutta under the operation of the provisions of section 3 of the Act.

Rules for the navigable River and Channels within the jurisdiction of the Port Officer.

2. All coasting vessels, cargo-boats, bhars, budgerows, up-country boats, and passenger-boats, when under weigh on the river after dark within the navigable river and channels, shall carry a white light in a lantern in the forepart of the vessel where it can be distinctly seen; and all steam vessels shall show when under weigh the lights prescribed by the Board of Trade's Regulations.

3. Vessels meeting with any accident, or causing damage to others, while in charge of an officer under the authority of the Port Officer, or of any pilot, have no claim on Government for such damage; but the parties concerned are to represent the case to the Port Officer, who will take such cognizance of the same as the merits of the case may seem to require.

4. Vessels are prohibited from throwing overboard ballast or rubbish of any kind detrimental to the bed of the river. All pilots are strictly enjoined to see that this rule is observed, and to report any infraction of it. As in other cases of breaches of the Port Regulations to which any penalty attaches, whenever and as often as the penalty is incurred, a bill will be made out against the commander for the amount, and no pilot will be granted to the vessel on board of which the offence has been committed until such fine be paid.

5. The Conservator of the navigable river and the channels leading to the port of Calcutta, or any person subordinate to him, may, at any time, board any vessel in order to ascertain that the rules are carried out.

6. Any infringement of the above rules will subject the offender or offenders to the penalties laid down in the Act.

Chapter XIII.—Miscellaneous Rules.

1. The pilot in charge of a vessel under weigh in pilotage waters shall always see that a leadsman is in the chains.

2. Leadsmen shall not take servants with them on board vessels to which they may be appointed.

3. Pilots are responsible for the good behaviour of any junior pilot or leadsman under their orders; and shall, in case of any misconduct on the part of the latter, place on record a full account of the facts, and report the matter to the Port Officer. Any omission to do this will be deemed a serious breach of duty.

4. The pilot in charge of an outward-bound vessel shall use his best exertions to prevent delay in getting her to sea; and, on quitting charge, he shall place himself under the orders of one of the commanders of the pilot vessels at the Sandheads. Should the brigs be off the station, the pilot should board the floating light-vessel, if this can be done with safety. No pilot shall return to Calcutta without orders from the Port Officer or the senior officer at the Sandheads.

5. The pilot in charge of a vessel arriving with stone ballast shall report the approximate quantity to the Port Officer.

6. No pilot shall leave the Sandheads without permission from the senior pilot on the station, or from the commander of the pilot vessel on which he may be at the time.

7. Ships arriving in the river, having troops or Government horses on board, shall on no account be brought higher up than Hastings until the troops are disembarked.

8. Vessels shall not be anchored at Nynan at spring-tides in the absence of any urgent necessity, and, in the event of any accident, such necessity will have to be clearly shown.

9. Vessels shall not anchor in the vicinity of the telegraph cable; but should necessity compel this, the pilot shall remove the vessel as soon as he possibly can.

10. The pilot in charge of a vessel at anchor at night shall require an officer's watch to be kept, and hand written night orders to the master for the instruction of his officers when making over charge of the deck.

11. If the pilot considers himself aggrieved by any conduct on the part of the master of a vessel, he shall transmit his complaint in writing to the Port Officer for his consideration and orders.

12. Every pilot and leadsman shall in case of sickness obtain a certificate from the Marine Surgeon of his inability to attend to his duty, and forward it to the Port Officer. If he fails to do this, he will be considered as being absent without leave. In like manner, on recovering from sickness, he must furnish a certificate of his ability to resume his duties.

13. Ships' guns shall not be fired in any part of the river, except as signals of distress.

14. Pilots or leadsmen shall not, on pain of dismissal from the service, seek or receive any gratuity from masters, owners, or agents of vessels, directly or indirectly.

15. When the Cruising Station is short of pilots, special pilots in charge of outward-bound vessels may be taken out on arrival at the station, and shall then take turn of duty with other pilots.

16. A special pilot whose services are required for general duty under the preceding rule, after conducting a vessel to Calcutta, shall be permitted to rejoin his special line at the Cruising Station, or in Calcutta, as he may prefer, unless the exigencies of the public service necessitate his continued employment on general duty, when he shall be appointed by turn only.

Chapter XIV.—Signals.

Section 1.—Commercial Code Signals.

1. The pilot in charge of a vessel is responsible that the following signals are hoisted when required.

Commercial Code N at the mizen—Indicates Government horses on board.[1]

Jack at the mizen—Indicates troops on board.[2]

Commercial Code S at the fore—Indicates convicts on board.

Commercial Code W at the main—Indicates pilgirms.

Commercial Code R at the main—Indicates epidemic disease.[3]

Commercial Code Q—Indicates vessels under quarantine.

---

[1] To be kept flying until the horses are disembarked.
[2] To be kept flying until the troops are disembarked.
[3] Two bright lights vertical by night, above Saugor.

15. If the cruizing station is short of pilots, a special pilot in charge of an outward bound vessel may be taken out on arrival at the station, and he shall then, in the absence of any other pilot of his grade, take his turn of duty. Should, however, any in-coming vessel of the line for which he acts as special pilot arrive before his services are required, he shall be appointed to her.

Additional Rule to Chapter XIII, Miscellaneous Rules, of Rules for the guidance of Running Pilots.

17. Pilots are directed to afford every assistance in their power to any officer duly authorised by the Judge of the Court for the trial of Pilots to arrest any person or persons on board of an outward-bound vessel. The master of the vessel should in the first instance be advised to give up the person or persons for whom a warrant has been issued, and on his failure to comply with such demand, the pilot should anchor the vessel in safety and communicate with the Port Officer. The vessel should not, however, be delayed longer than is absolutely necessary to carry out these instructions.

National ensign at the fore approaching Moyapore Magazine—Indicates powder-boat required.

A red flag hoisted at a telegraph-station—Indicates communication imperative.

A white flag hoisted at a telegraph-station—Indicates communication optional.

2. The following sections of Act XII of 1875 require the attention of pilots:—

62. The master of every inward or outward-bound vessel, on arriving within signal distance of any signal-station established within the limits of the river Hooghly, or within the limits of any part of a river or channel subject to this Act, shall, on the requisition of the pilot in charge of the vessel, signify the name of the vessel by hoisting the number by which she is known, or by adopting such other means to this end as may be practicable and usual, and shall keep the signal flying until it is answered from the signal-station.

63. Any master of a vessel arriving as aforesaid, who refuses or neglects to conform to the above rule, shall be liable on conviction, for each instance of such refusal or neglect, to a fine not exceeding one thousand rupees.

64. Every pilot in charge of a vessel shall require the number of the vessel of which he is in charge to be duly signalled as provided under section 62.

When, on a requisition from the pilot to that effect, the master of a vessel refuses to hoist the number of a vessel, or to adopt such other means of making her name known as may be practicable and usual, the pilot in charge of such vessel may, on arrival at the first place of safe anchorage, anchor the vessel and refuse to proceed on his course until the requisition has been complied with.

65. Any pilot in charge of a vessel who disobeys, or abets within the meaning of the Indian Penal Code disobedience to, any of the provisions of this chapter, shall be liable to a penalty not exceeding five hundred rupees for each instance of such disobedience or abetment, and in addition shall be liable to dismissal from his appointment.

Section 2.—Customs Signals.

3. The following signals shall be hoisted when required:—

On approaching Pachpara—

Ensign at the main—Indicates no Preventive Officer on board (inward).

Ensign at the fore—Indicates Preventive Officer on board (outward).

White flag at the main—Indicates ballast.

Commercial Code S under ensign at the main—Indicates salt cargo on board.*

Any flag at the jib-boom end—Indicates a vessel from Moulmein, Rangoon, Akyab, Chittagong. Preventive Officer not required.

Section 3.—Storm Signals.

4. When the warning signal, as described in the notification of the 20th November 1874 (quoted below), is hoisted on the flagstaff at

* To be hoisted if salt forms any part of the vessel's cargo.

Saugor Island, near the light-house, or at Mud Point, pilots in charge of vessels shall not put to sea, unless, in their judgment, the local weather symptoms are such that this course is not imprudent; and unless the master, concurring in this opinion, distinctly takes upon himself the responsibility of going to sea, and gives the pilot a written statement to that effect.

5. When the danger signal, as described in the notification of the 20th November 1874, is hoisted on the flagstaff at Saugor Island, near the light-house, or at Mud Point, pilots in charge of vessels shall not put to sea, but shall make the vessels under their charge as snug and secure as possible; nor shall they proceed below Diamond Harbour when a black drum is hoisted at the flagstaff at that station.

6. The following are the storm signals described in the notification of the 20th November 1874:—

I.—Signals for the approaches to the Port of Calcutta.

When there is bad weather in the Bay of Bengal, the following signals will be hoisted at the flagstaff near the light-house on Saugor Island, at Mud Point, and at the flagstaff, Diamond Harbour, near the telegraph-station, on receipt of instructions telegraphed from the Meteorological Office, Calcutta:—

During Day.

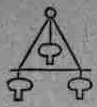
Name.	Shape.	Signification.
Bad weather signal.		A single cone indicates that bad weather (such as usually precedes, but is not always followed by, a cyclone) is probably prevalent in the Bay.
Warning signal.		A black double cone indicates that the passage of a cyclone is probable, as a cyclonic vortex is believed to have been formed in the Bay. When this signal is up, pilots will not put to sea unless, in their judgment, the local weather symptons are such that this course is not imprudent; and unless the master, concurring in this opinion, distinctly takes upon himself the responsibility of going to sea, and gives the pilot a writing to that effect.
Danger signal.		A black drum indicates that a cyclone is probably approaching. When this signal is hoisted, masters or pilots in charge of vessels are forbidden to put to sea from Saugor, or proceed down from Diamond Harbour, and should make their vessels as snug and secure as possible.

At Night.

Bad weather signal.

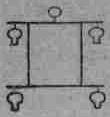
Two lights in a vertical line.
Cyclonic disturbance in the Bay.

Warning signal.



Three lights in a triangle.
Cyclone probable.

Danger signal.



Four lights in a square.
Cyclone approaching.

II.—Signals for the Port of Calcutta.

The following storm signals only are to be used within the limits of the Port of Calcutta, and are to be hoisted on the yard-arm of the flagstaff near the Government Dockyard, Kidderpore, and on the yard-arm of the flagstaff on the roof of the Sailors' Home, on the receipt of instructions from the Meteorological Office:—

During Day.

Name.	Shape.	Signification.
Warning signal.	*Double cone.*	Cyclone probable.
Danger signal.	*Drum.*	Cyclone approaching.

At Night.

Warning signal.	*Three lights in a triangle.*	Cyclone probable.
Danger signal.	*Four lights in a square.*	Cyclone approaching.

Section 4.—Fog Signals.

7. Signal guns shall be fired during fogs at intervals of half-an-hour from the following light-vessels:—

Lower Gasper light-vessel at the hour and half-hour.

Upper Gasper light-vessel at the first and third quarters of the hour.

8. All vessels entering or being overtaken by a fog shall be navigated with the greatest caution and at a very moderate speed.

9. In fog, whether by day or night, the following signals shall be used :—

(a) A steam-vessel under weigh shall make with her steam-whistle, or other steam sound signal, at intervals of not more than two minutes, a prolonged blast.

(b) A sailing-vessel under weigh shall sound her fog-horn at intervals of not more than two minutes.

(c) All steam-vessels and all sailing vessels when in the fairway of the river and not under weigh, shall at intervals of not more than two minutes ring the bell.

10. In all cases where the Regulations as above require a bell to be used, a drum is substituted on board Turkish vessels, whether of the Imperial or Mercantile Navy.

Chapter XV.—Customs Rules binding upon pilots.

1. The pilot in charge of an inward-bound vessel shall keep a good look-out for the Custom-house boat at Pachpara, and afford every facility to her in getting alongside. Nothing short of risk to the safety of the vessel is to prevent a customs officer being received on board at the proper station.

2. Pilots shall sign receipts for native crew lists when made over to them by preventive officers, and shall further give receipts for any papers on matters of service that may be made over to them by preventive officers.

3. Should any attempt be made to remove goods from a vessel in the river, save under section 70 of Act VIII, 1878, the master shall be warned that he is liable to fine and that such goods are liable to confiscation under section 167, clauses 2, 5, 11, 28, and 31 of that Act. If, notwithstanding such warning, the removal of goods be persisted in, the fact shall be reported to the Port Officer, and the vessel detained until further orders.

4. Should any attempt be made to put goods on board an outward-bound vessel, after port-clearance has been obtained and the preventive officer has left, the pilot shall remonstrate, and if the attempt is persisted in, shall report the matter and detain the vessel for further orders.

5. Pilots in charge of vessels coming into Saugor, or elsewhere in pilotage waters for orders, shall obtain from the master the ship's manifest, and forward it to the Collector of Customs within twenty-four hours of the vessel's anchoring,

6. A manifest shall be forwarded from all merchant vessels even though they have only ballast on board; in the latter case, the circumstance shall be specially noted in the inward certificate.

7. The form of import manifest, prescribed by the Chief Customs Authority, under section 55 of Act VIII of 1878, shall be delivered to the master of every inward-bound vessel, and the instructions to pilots and masters, Nos. 1 to 4, which are printed on the manifest and which are as follow, shall be carefully carried out :—

(1).—A copy of this form of manifest should be presented to the master of every inward-bound vessel by the pilot as soon as possible after that officer boards her.

(2).—The master, on receipt of the manifest, should fill up the heading, as well as columns 2, 3, 4, 5, 6, and 7, and should sign and return the document to the pilot before passing Diamond Harbour.*

(3).—The pilot, on receiving back the manifest, should countersign the same, close the wrapper, seal it, and if the vessel is a sailing ship, despatch the document by the first dâk-boat that arrives alongside the vessel.

(4).—If the vessel is a steamer or a vessel in tow, the pilot, after countersigning and sealing the manifest, should make it over to the customs officer, if there be one on board, or if there be none, to the master, for presentation at the Custom-house at the time of entry inwards.

8. Should No. (2) of the instructions printed on the manifest not be complied with, the pilot shall warn the master that he is rendering himself liable to a penalty of Rs 1,000, referring him to sections 53, 54, and 167, clauses 13, 14, and 15, of Act VIII, 1878.

9. The following sections of the "Sea Customs Act, 1878," are reproduced for the information of pilots:—

Stations for customs officers to board and land.

17. The Chief Customs Authority may from time to time appoint, in or near any customs-port stations or limits at or within which vessels arriving at, or departing from, such port shall bring to for the boarding or landing of officers of customs, and may, unless separate provision therefor has been made under the Indian Ports Act, 1875, direct at what particular place in any such port vessels not brought into port by pilots shall anchor or moor.

Power to fix places beyond which inward-bound vessels are not to proceed until manifest delivered.

53. The local Government may, by notification in the local official Gazette, fix a place in any river or port beyond which no vessel arriving shall pass until a manifest has been delivered to the pilot, officer of customs, or other person duly authorized to receive the same.

Delivery of manifest when vessel anchors below place so called.

If, in any river or port wherein a place has been fixed by the local Government under this section, the master of any vessel arriving remains outside or below the place so fixed, such master shall, nevertheless, within twenty-four hours after the vessel anchors, deliver a manifest to the pilot, officer of customs, or other person authorized to receive the same.

Delivery of manifest where no place has been so fixed.

54. If any vessel arrives at any customs-port in which a place has not been so fixed, the master of such vessel shall, within twenty-four hours after such vessel has anchored within the limits of the port, deliver a manifest to the pilot, officer of customs, or other person authorized to receive the same.

No vessel to depart without port-clearance.

62. No vessel, whether laden or in ballast, shall depart from any customs-port until a port-clearance has been granted by the Customs-Collector or other officer duly authorized to grant the same.

No pilot to take charge of vessel proceeding to sea without production of port-clearance.

And no pilot shall take charge of any vessel proceeding to sea, unless the master of such vessel produces a port-clearance.

63. Every application for port-clearance shall be made by the master at least twenty-four hours before the intended departure of the vessel.

---

* *Vide* notification dated 28th October 1868, published in the *Calcutta Gazette* of the 7th November 1868, page 2048, and clause 3, section 2 of Act VIII of 1878.

Punishments for offences.

107. The offences mentioned in the first column of the following schedule shall be punishable to the extent mentioned in the third column of the same with reference to such offences respectively:—

OFFENCES.	Section of this Act to which offence has reference.	Penalties.
1.—Contravening any rule made under this Act.	General ...	Penalty not exceeding five hundred rupees.
2.—If any goods be landed or shipped or if an attempt be made to land or ship any goods, or if any goods be brought into any bay, river, creek, or arm of the sea, for the purpose of being landed or shipped at any port or place which, at the date of such landing, shipment, attempt or bringing, is not a port for the landing and shipment of goods.	11 ...	Such goods shall be liable to confiscation.
3.—If any person ship or land goods, or aid in the shipment or landing of goods, or knowingly keep or conceal, or knowingly permit or procure to be kept or concealed, any goods shipped or landed, or intended to be shipped or landed, contrary to the provisions of this Act; or if any person be found to have been on board of any vessel liable to confiscation on account of the commission of an offence under No. 2 of this section, while such vessel is within any bay, river, creek, or arm of the sea which is not a port for the landing or shipment of goods.	General ... 11 ...	Such person shall be liable to a penalty not exceeding one thousand rupees.
5.—If any goods are put, without the authority of the proper officer of customs, on board of any tug-steamer or pilot-vessel from any sea-going vessel inward-bound; or if any goods are put, without such authority, out of any tug-steamer or pilot-vessel for the purpose of being put on board of any such vessel outward-bound; or if any goods on which drawback has been granted are put, without such authority, on board of any tug-steamer or pilot-vessel for the purpose of being re-landed.	11 ...	Such goods shall be liable to confiscation, and the master of every such tug-steamer or pilot-vessel shall be liable to a penalty not exceeding one thousand rupees.

Offences.	Section of this Act to which offences has reference.	Penalties.
6.—If any vessel arriving at, or departing from, any customs port fails, when so required under section 17, to bring to at any such station as has been appointed by the Chief Customs Authority for the boarding or landing of an officer of customs,	17 ...	The master of such vessel shall be liable to a penalty not exceeding one thousand rupees.
11.—If any wine, spirit, provisions, or stores be not laden on board of the vessel on board of which they should, under the provisions of sections 45, 46, 47, or 48, be laden, or be unladen from such vessel without the permission of the proper officer of customs,	44 to 48 ...	Such wine, spirit, provisions, or stores shall be liable to confiscation.
13.—If, in any river or port wherein a place has been fixed under section 53 by the local Government, any vessel arriving passes beyond such place before delivery of a manifest to the pilot, officer of customs, or other person duly authorized to receive the same,	53 ...	The master of such vessel shall be liable to a penalty not exceeding one thousand rupees.
14.—If the master of any vessel arriving, which remains outside or below any places so fixed, wilfully omits, for the space of 24 hours after anchoring, to deliver a manifest as required by this Act,	53 ...	Such master shall be liable to a penalty not exceeding one thousand rupees.
16.—If any manifest delivered under sections 53, 54, 60, 63, or 66 is not signed by the person delivering the same, and is not in the form or does not contain the particulars required by section 55 or 63, as the case may be, in so far as such particulars are applicable to the ship, cargo, and voyage, or if any manifest so delivered does not contain a specification, true to the best of such person's knowledge, of all goods imported or to be exported in such vessel.	55 and 63 ...	The person delivering such manifest shall be liable to a penalty not exceeding one thousand rupees.

OFFENCES.	Section of this Act to which offence has reference.	Penalties.
18.—If any person required by this Act to receive a manifest from any master of a vessel refuses so to do, or fails to countersign the same, or to enter thereon the particulars referred to in section 56,	53, 54, and 56	Such person shall be liable to a penalty not exceeding five hundred rupees.
23.—If any pilot takes charge of any vessel proceeding to sea, notwithstanding that the master of such vessel does not produce a port-clearance.	62 ...	Such pilot, on conviction before a magistrate, shall be liable to fine not exceeding one thousand rupees.

CHAPTER XVI.—RULES RELATING TO LIGHTS AND LIGHT-VESSELS.

Section 1.—*Lights—General.*

1. In the following rules every steam-vessel which is under sail and not under steam is to be considered a sailing-vessel, and every steam-vessel which is under steam, whether under sail or not, is to be considered a vessel under steam.

2. A steam-vessel when under weigh at night shall carry—

(*a*) On or before the foremast, at a height above the hull of not less than 20 feet, and if the breadth of the ship exceeds 20 feet, then at a height above the hull not less than such breadth a bright white light so constructed as to show an uniform and unbroken light over an arc of the horizon of 20 points of the compass, so fixed as to throw the light 10 points on each side of the ship, viz. from right ahead to 2 points abaft the beam on either side, and of such a character as to be visible on a dark night, with a clear atmosphere, at a distance of at least five miles.

(*b*) On the starboard side, a green light so constructed as to show an uniform and unbroken light over an arc of the horizon of 10 points of the compass, so fixed as to throw the light from right ahead to 2 points abaft the beam on the starboard side, and of such a character as to be visible on a dark night, with a clear atmosphere, at a distance of at least two miles.

(*c*) On the port side, a red light, so constructed as to show an uniform and unbroken light over an arc of the horizon of 10 points of the compass, so fixed as to throw the light from right ahead to 2 points abaft the beam on the port-side, and of such a character as to be visible on a dark night, with a clear atmosphere a distance of at least two miles.

(*d*) The said green and red lights shall be fitted in such a manner as to prevent these lights from being seen across the bow.

3. A steam-vessel when towing another vessel shall, in addition to her side lights, carry two bright white lights in a vertical line, one over the other, not less than four feet apart. Each of these lights shall be of the same construction and character, and shall be carried in the same position as the white light which other steam-vessels are required to carry.

4. A steam vessel towing shall also carry a light showing astern as a guiding light to the vessel or vessels towed, but this light must be so screened as not to be visible further forward than 4 points abaft her beams.

5. On and after the 1st day of July 1881, the pilot brigs at the Sandheads will, when under weigh and cruising about, show the usual red and green side lights. When they are hove to, engaged in supplying or taking out a pilot, and thus not under command, the side lights will be obscured, and the bright masthead light exhibited according to the regulations of the Board of Trade. On the near approach of a vessel, a white light will be shown over the brig's stern.

6. While pilot brigs are at anchor, the usual anchor light will be hoisted at the starboard fore yard-arm.

7. The maroons, or flare-up lights, as heretofore, will be burnt by the brigs every quarter of an hour, whether under weigh or at anchor, from sunset to sunrise, in accordance with the aforesaid regulations.

8. A sailing-vessel under weigh, or being towed, shall carry the same lights as are provided by Rule 2 for a steam-vessel under weigh, with the exception of the white light, which she shall never carry.

9. A steam-vessel, or a sailing vessel, when at anchor in the river, shall carry, where it can best be seen, at a height not exceeding 20 feet above the hull, a white light in a globular lantern of not less than eight inches in diameter, and so constructed as to show a clear, uniform, and unbroken light visible all round the horizon at a distance of at least one mile.

10. A vessel which is being overtaken by another vessel shall show from her stern to such last-mentioned vessel a white light or a flare-up light.

11. Powder-boats and vessels under Rule 2 for the navigable rivers and channels within the jurisdiction of the Port Officer are exempted from the above rules.

12. No pilot in charge of a vessel should burn a blue light (except in cases of distress) between the Upper Gasper and the Eastern Channel floating light-vessels.

Section 2.—Riding Lights for Light-vessels.

13. The following rules shall be observed in respect of riding lights on the Hooghly light-vessels:—

(1).—A white light, ordinary ship's lantern, shall be exhibited from the forestay of each light-vessel at a height of six feet above the rail, for the purpose of showing in which direction the vessel is riding when at her station.

(2).—When a light-vessel is driven from her proper position, to one where she is of no use as a guide to shipping the following signals shall be made :—

(3).—The usual lights shall not be exhibited, but a fixed red light shall be exhibited at each end of the vessel, and a red flare light shown every quarter of an hour. By day the balls or other distinguishing masthead marks shall be struck.

(4).—If from any cause the light-vessel be unable to exhibit all her usual lights whilst at her station, the riding light shall be shown and such portion of her usual lights as it may be possible to exhibit.

(5).—The firing of special rockets of an explosive character from a light-vessel shall denote the need of assistance from the shore:

Section 3.—Distinguishing Marks for Light-vessels.

14. The Mutlah light-vessel shall carry at her masthead a ball painted red, with a white horizontal band round the centre.

15. And the Pilots' Ridge light-vessel shall carry at her masthead a ball painted white, with a black horizontal band round its centre.

16. The Eastern Channel light-vessel shall carry at her masthead a ball painted black.

CHAPTER XVII.—RULES REGARDING EXPLOSIVE SUBSTANCES.

Section 1.—Gunpowder.

1. The pilot in charge shall not bring any vessel within the limits of the port that has more than 15lbs of powder or other combustible ammunition on board. He shall telegraph from Saugor the quantity in excess, and land it before passing Budge-Budge for deposit in the Moyapore Magazine. This rule does not apply to men-of-war.

2. When a vessel arrives with Government powder on board, the pilot shall telegraph the fact from Saugor.

3. A Vessel with Government powder on board may be brought up to the bottom of Garden Reach.

4. Pilots shall be on the look-out for, and shall avoid collision with, the Government powder-boat plying between Moyapore and Calcutta, which will show a red masthead light at night and a red flag by day. The word "powder" will also be shown on the gun-wales of the boat.

5. Where a vessel has consignments of powder on board, the pilot may telegraph direct to the Magazine-keeper, Moyapore, to make arrangements for landing.

Section 2.—Inflammable Oil.

6. No pilot shall bring any vessel above Mutteabrooj Ghât which has more than 40 gallons of inflammable oil on board,

NOTIFICATION.

The 19th February 1883.—The Lieutenant-Governor is pleased, with the previous sanction of His Excellency the Governor-General in Council, to add the following proviso to Rule 5 of the rules for regulating the importation of Petroleum, passed under section 7 of the Petroleum Act, 1881:—

Provided that this rule shall not apply to oil which is intended exclusively for lubricating or jute-batching purposes, and has a flashing point above 150° Abel's test. On the master of a vessel certifying that the petroleum which he has on board is all of this discription, the ship may be brought up to the jetties and cargo discharged in the ordinary manner, but the Commissioner of Police shall be entitled at any time to obtain a sample of such petroleum for the purpose of having it tested.

COLMAN MACAULAY,
Secretary to the Govt. of Bengal.

NOTIFICATION.

The 6th March 1883.—Notification dated the 28th October 1863, published in the *Calcutta Gazette* of the 7th November 1863, which declares that no inward bound vessel, wind and weather permitting, shall pass Diamond Harbour without delivering to the pilot, Customs officer, or other person duly authorized to receive it, the manifest or report required by section 33 of the Customs Act, VI of 1863 (corresponding with section 53 of Act VIII of 1878), is hereby withdrawn.

A. P. MAC DONNEL,
Offg. Secy. to the Govt. of Bengal.

7. The following are the Port Rules relating to gunpowder and inflammable oil :—

Vessels having powder in excess of the authorized quantity to be kept outside the port.

11. No vessel shall have on board, within the limits of the port, more than 15lbs of gunpowder as defined in the Act, so as not to exceed 5lbs of common gunpowder and 10lbs of rockets and combustible ammunition.

Regulations for vessels carrying inflammable oils.

12. When a vessel has on board more than 40 gallons of any inflammable oil, the master shall inform the pilot and Harbour Master on board, and the vessel shall not be moved above Muttea-brooj Ghât without the permission of the Commissioners. If the master delivers to the pilot or Harbour Master, or the agent delivers to the Commissioners, a certificate duly attested at the port of shipment, stating that the oil is not inflammable, the vessel shall not be detained at the entrance of the port. No vessel lying above Mutteabrooj Ghât shall take or keep on board more than 40 gallons of any inflammable oil without the permission of the Commissioners.

Explanation.—"Inflammable oil" includes petroleum, benzole, kerosine, and any oil, or product of oil, that gives off an inflammable vapour at a temperature of less than one hundred degrees of Fahrenheit's thermometer.

Landing of oil in covered boats.

13. Inflammable oil shall only be landed between sunrise and sunset in a covered cargo-boat, and at such places only as may be appointed for the purpose under the sanction of the Government of Bengal, due notice of which shall have been given to the public. No smoking, fire, or light of any description shall be allowed in any such boat during the time that such oil is on board.

Place for landing inflammable oil.

14. The place appointed for landing inflammable oil shall be Neemuck Mehal Ghât for oil landed on the Calcutta bank of the river, and the ghât immediately to the east of the Royal Botanical Gardens for oil landed on the Howrah bank of the river, and such oil shall not be landed at any other ghâts, except with the special permission of the Commissioners.

8. The following are the Port Rules in force for regulating the discharge and loading of gunpowder on shipboard :—

45. All inward-bound vessels carrying gunpowder, the total quantity of which is in excess of 15lbs are prohibited from proceeding above Budge-Budge, and the master of any vessel lying within the port, or in the river above Budge-Budge, which shall have on board any gunpowder in excess of 15lbs shall be liable to the penalty provided in section 34 of the said Act, XII of 1875; provided that boats will be permitted to bring as far as Neemuck Mehal Ghât, under cover of a pass to be granted by the Commissioners, 50lbs of gunpowder, the property of dealers and consignees.

46. All such gunpowder, in excess of the prescribed quantity, 15lbs, must be landed and deposited in the magazine at Moyapore.

47. The magazine-keeper will take charge of the gunpowder immediately on its being conveyed to the shore at Moyapore, and will deposit it in the magazine.

48. For the convenience of vessels having gunpowder on board, a properly-constructed powder-boat will be always in attendance off the magazine for landing and shipping powder. No charge will be made for the use of the boat for landing ship's powder, but the responsibility of the keeper in respect of the powder will not commence until it is landed on the bank, and will cease as soon as it is shipped on board the boat. Every precaution will be taken to ensure the safety of the powder while in the boat, but the landing and shipping is at the risk of the vessel.

49. Vessels bringing consignments of trade or Government powder will be liable to pay landing charges for the use of the boat if the magazine boat is used, and should passing vessels require the use of the boat to put out or receive ship's powder, such vessels must be accommodated before the boat can be used to discharge powder or ammunition brought as cargo.

50. In order to avoid unnecessary detention, masters of vessels requiring the use of the powder-boat are required to hoist a flag at the foretopmast head on coming in the sight of the magazine, as a signal to the keeper to have boat and coolies in attendance.

51. Masters of vessels are required to mark the names of their respective vessels on the barrels and packages of gunpowder previously to their being landed, and, if not marked, they will not be received by the magazine boat.

52. Gunpowder shall not be landed or received into the magazine when artificial lights are required to be used.

53. The magazine-keeper shall give to the master, or other person making the deposit, a receipt for the number of packages, and he shall be accountable to such master or other person for the re-delivery of such packages.

54. A native clerk will be always in attendance in the powder-boat, and will receive from the master the declaration required by section 30 of the Act, and grant the receipt specified in the foregoing rule.

55. If any vessel shall be prevented by stress of weather, or by being in distress, from landing or depositing such gunpowder in excess of the quantity allowed as aforesaid, such vessel may be permitted to come up to the lower limits of the port, but shall not proceed above Muttesbrooj Ghât, and the master of such vessel shall forthwith give notice to the Conservator of his having such gunpowder on board, and shall obey his directions relating to the same.

56. Masters of vessels outward bound, who may require gunpowder for their outward voyage, shall not take gunpowder on board in any part of the river above Budge-Budge, with the exception of a quantity not exceeding 15lbs.

57. Masters of vessels who have deposited ship's powder at the magazine should inform the Deputy Conservator of the date on which the vessel will pass the magazine outward-bound, and on receipt of this information, orders will be forwarded to the keeper to place the powder in the boat, and send it off in such time as to avoid any detention of the outward-bound vessel. Before delivering the powder, the receipt granted by the magazine-keeper must be given up.

58. Delivery of powder into boats at the magazine for conveyance to Calcutta will only be granted upon orders issued from the office of the Commissioners.

59. No boat containing powder shall be allowed to proceed above Neemuck Mehal Ghât. All powder shall be landed at Neemuck Mehal Ghât, and no powder shall be landed at any other ghât, except with the special permission of the Commissioners.

60. The two foregoing rules shall not apply to Government powder-boats, which will be allowed to enter the port and discharge their powder under the rules laid down by the Inspector-General of Ordnance.

61. No smoking and no fire or light of any description shall be permitted on board of any boat having gunpowder or combustible ammunition on board.

62. No powder shall be landed within the port at any time when artificial light is required to be used.

Chapter XVIII.—Rules for the investigation of Crimes and accidents on the river Hooghly, outside the limits of the Port of Calcutta.

The following are the orders of Government in the Judicial Department on this subject:—

1. To remove any doubts that may exist as to the proper jurisdiction in respect of such crimes and accidents, a notification has been published in the *Gazette*, declaring the river below Calcutta and outside the limits of the port of Calcutta to be attached to the district of the 24-Pergunnahs. The jurisdiction over this part of the river down to the Bydekhallee village, the most northerly point on the river bank of the Diamond Harbour sub-division, will remain with the

Magistrate of the district, or the officer in charge of the head-quarters sub-division, when such an arrangement exists. The jurisdiction in the remaining portion of the river to the sea will belong to the sub-divisional Magistrate at Diamond Harbour, at which place a European officer will always, if possible, be posted.

2. It shall be incumbent on every pilot and commander having a pilot's license, and on every commander of a river steamer, to report, within twenty-four hours of his arrival in port, through the Port Officer, to the Magistrate of the 24 Pergunnahs, every case of crime or severe accident that occurs outside the limits of the port of Calcutta on board any inward-bound vessel under his charge; and the Magistrate shall thereupon cause such inquiry to be made as may appear to him to be necessary.

3. In regard to outward-bound vessels, it shall be the duty of the pilot or licensed tug commander to give immediate information direct by telegraph to the Magistrate having jurisdiction, in every case of serious crime, and every case of accident in which loss of life occurs, or loss of a vessel or boat, unless in the latter case the value is deposited. A report should also, if possible, be sent to the nearest police-station. The pilot or licensed commander will, after despatching his report, refuse to proceed in pilotage charge of the vessel until the Magistrate arrives on board or sends an order, or until the expiry of thirty-six hours from the time of the despatch of the telegram, whichever event may first take place. In a very serious case he will wait till he receives orders. The Magistrate, on receipt of the information, shall at once proceed to hold an investigation on board the vessel from which the report is thus made; and he shall have power to take out of the vessel by his warrant such persons as may be required for the trial, either as defendants or witnesses. On receipt of such a report at any police-station, the officer in charge shall at once proceed on board and commence investigation, and may make arrests and take such other steps as he is empowered by law to take.

4. The Port Officer will insist on the performance by all pilots and licensed commanders of the duties herein imposed upon them.

5. The Magistrate of the 24-Pergunnahs should distribute his row-boats in the best way he can, and otherwise make the most efficient arrangements for carrying out these orders.

6. The Midnapore police will receive such reports at any stations belonging to that district on the right bank of the river, and will act in respect of them as though they belonged to the 24-Pergunnahs.

7. Reports should be made to any of the following police-stations :—

		District.
1.	Budge-Budge outpost	24-Pergunnahs.
2.	Atcheepore station	
3.	Fultah outpost	
4.	Diamond Harbour station	
5.	Culpee station	
6.	Rangafulla outpost	

		District.
1.	Gewkhally outpost	Midnapore.
2.	Sutabata do.	
3.	Balughatta do.	
4	Nundigram station	
5.	Kedgree (Khajri) do.	
6.	Russulpore outpost	
7.	Contai station	
1.	Ooloobarish station	Howrah.
2.	Sankrail do.	

Chapter XIX.—Medical Inspection and Quarantine Rules.

1. The pilot taking charge of an inward-bound vessel shall, in every case, show the master a copy of the Medical Inspection Rules, and ascertain if the vessel has come from a port where plague, yellow-fever, or typhus was prevalent, and whether any case of such disease has occurred during the voyage. If any such case has occurred during the voyage, the pilot shall telegraph the fact to the Port Officer from Saugor, and the vessel shall be anchored at Royapore, and there await further orders.

2. The following are the Medical Inspection Rules :—

I. The master of every in-coming vessel, on board which there is, either among the passengers or crew, any case of cholera, small-pox, or other epidemic disease common in India, shall report such case or cases to the pilot immediately upon his going on board at the Sandheads, and the pilot shall hoist a signal, which shall be, during the day flag R of the Commercial Code at the main; and during the night two lighted lanterns, one over the other, at the fore.

II. The Port Officer, on receiving information by telegraph from Saugor or any telegraph-station, that a vessel carrying this signal has passed the station upwards, shall at once communicate the information to the Health Officer of the port.

III. The Health Officer, as early as possible after receipt of this information, shall inspect the vessel, and more especially its sanitary condition; shall enquire into the circumstances attending the case or cases of the said disease, and shall arrange for the conveyance of all persons suffering from such disease to a hospital, unless the sick person or his friends can make adequate provision elsewhere.

IV. Where the disease or diseases in question are limited to one or two cases, the vessel shall not be prohibited from taking up the usual place of anchorage in the port, nor shall the passengers be detained on board pending the inspection of the Health Officer; but the master of the vessel shall be held responsible that no passenger suspected of having such disease is allowed to depart before this inspection.

V. Where cases have been more numerous than one or two, or when, from their occurring on pilgrim or emigrant ships, or for other special reasons, further precautions may be deemed advisable, the vessel shall anchor at Mottabrooj Ghat, and none of the passengers shall be allowed to leave until the Health Officer has made his inspection.

VI. Vessels coming under this last rule shall be thoroughly cleansed and fumigated under the directions of the Health Officer. In the case of small-pox, it shall be his duty to vaccinate, or have vaccinated, all those on board who appear to require this protection and are willing to accept it.

I. The commander of every vessel, including buggalows or other native craft, arriving from a port where plague, yellow-fever, or some fatal epidemic not ordinarily prevalent among Indian populations prevails, shall, on arrival at the Sandheads, hoist a yellow flag, and indicate by signal the port from which she has come, and shall keep such flag and signal flying until permitted to take it down as hereinafter provided.

III. The pilot shall not take such vessel higher up the river than [illegible] but shall anchor it there until the Health Officer of the Port has visited it and ascertained by enquiry whether any person on board such vessel is suffering, or has during the voyage suffered, from such disease as aforesaid; and if such officer is satisfied by enquiry that no such case has occurred, he shall, by writing under his hand, to be delivered to the commander, permit such vessel to haul down the yellow flag and proceed upwards to the port, and to hold free communication with the shore and with other vessels and boats in port.

3. The following quarantine rules will be brought into force on each occasion on which they may be required, but only by a separate order of the Government of India. It shall then be the duty of the pilot in charge of any vessel to which they apply to draw the attention of the master of the vessel to them, and, in case they are not complied with, to report the matter to the Port Officer:—

I.—The commander of every vessel, including buggalows or other native craft, arriving from a port where plague, yellow-fever, or some fatal epidemic not ordinarily prevalent among Indian populations prevails, shall, before entering the harbour, indicate by signal the port from which such vessel has come.

II.—Such commander shall not, without having first obtained permission as hereinafter provided, allow any communication with the shore or with any other vessel or boat, excepting only with the boat supplying the pilot* from the pilot-brig, and in that case communication shall be limited to receiving on board the pilot, his leadsman, servant, and baggage.

* N.B.—Pilotage is compulsory for all vessels over 100 tons.

III.—Immediately on the signal of such arrival being made, the Health Officer of the port shall go alongside the vessel and ascertain by enquiry from the commander whether any person on board is then suffering, or has during the voyage suffered, from plague, yellow-fever, or some fatal epidemic not ordinarily prevalent among Indian populations; and if such officer is satisfied by such enquiry that no such case has occurred, he shall by writing under his hand, to be delivered to the commander, permit free communication between such vessel and the shore, and with other vessels and boats in the harbour.

IV.—If the Health Officer shall have reason to believe that any such case has occurred, he shall direct the commander to detain the vessel at the quarantine anchorage at Reyapore for the space of 15 days from the day of arrival there, or from the date of the occurrence of the latest case of illness, and shall further direct the commander to prohibit during the said 15 days all communication except such as is hereinafter provided for between such vessel and the shore, or other vessels or boats in the harbour. The Health Officer may further direct the removal of so many of the passengers and crew as may not be suffering from sickness, and whose services may not be required on board the ship, to such particular spots as may from time to time be fixed upon by the local Government as places of quarantine, there to remain for a space of 15 days, or, in the event of the occurrence of a case of sickness, for a space of 15 days from the date of the occurrence of the last case. The Health Officer may permit the pilot, with his leadsman and servants, to leave the vessel at any time after such precautionary disinfection of their persons and baggage as he may think necessary, or may direct that they remain in quarantine along with the passengers and crew.

V.—Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as may be deemed necessary by the Health Officer to prevent the spread of the disease.

VI.—It will be the duty of the Port Officer to facilitate the conveyance to the vessel in quarantine of all supplies of provisions, stores, and other articles required by those on board. These supplies should be placed on the boats of the vessel, to be subsequently removed by members of her crew.

Chapter XX.—Rules for officers in pilotage charge carried off to sea.

1. If the pilot, after piloting an outward-bound vessel to the Sandheads, perceives, or is informed, that it is the intention of the master of such ship to carry him off to sea, he shall, on his own behalf, and on that of his leadsman, if he have one, deliver to the master a written protest (in the Form A annexed) against his being so carried off; and shall warn such master of the responsibility incurred by him in so doing, and of the liability of the owners or agents of

the vessel to pay all the expenses of his (the pilot's) and his leadsman's return to Calcutta, in addition to compensation at the rate of Rs. 10 a day for himself and Rs. 5 a day for his leadsman during the time of their absence from their station. If the master, notwithstanding the protest, takes him to sea, the pilot shall, on the first opportunity after being carried off, forward to the Port Officer of Calcutta a copy of the protest delivered by him to the master, together with a certificate (in the Form B annexed) of the circumstances under which he was carried off, and a certificate (in the Form C annexed) from the Port Officer or other equivalent authority at the place where he is landed, stating the name of the vessel and the date on which he landed, and that he has availed himself, or will avail himself, of the first opportunity to return to Calcutta.

In the event of his being placed on board another vessel at sea bound for Calcutta, he shall forward, in lieu of the certificate last described, a certificate signed by the commander of such vessel, stating the date, position, and circumstances under which he was transferred to her from the vessel in which he was carried off.

2. Any pilot carried off to sea under the conditions described in the preceding rule shall inform the Port Officer, Calcutta, by telegraph, of his arrival at the first port at which the vessel may touch, or, in the absence of direct telegraphic communication, shall report his arrival by the first mail leaving such port, and forward the requisite certificate from the Port Officer at the port where he is landed. He shall use all possible despatch in returning to the station or to Calcutta, failing which his claim upon the ship and owners will be liable to retrenchment by the Port Officer.

A.—Form of Protest to be delivered to Master.

Perceiving that it is the intention of the master of the
to carry me (and my leadsman) off to sea, I,
, pilot, hereby protest, on my own behalf and on
that of Mr. , leadsman, against our being so carried off; and accordingly warn the aforesaid master that the vessel is liable, under guarantee taken from the agents, for all expenses actually incurred by me and the leadsman from the time of our being so carried off to sea until our return to the Sandheads and being placed on board a pilot-brig, or until our return to the port of Calcutta; as also for compensation, at the rate of Rs. 10 per diem for myself and Rs. 5 per diem for the leadsman, from this date until we return to the pilot-station or Calcutta, as above provided.

Dated the of 18 . *Pilot of the*

B.—Form of Certificate to be forwarded to the Port Officer.

I hereby certify that I, , pilot,
and Mr. , leadsman, have this
day been carried to sea on the ship
under the following circumstances, and I certify that I have

represented to Captain of the ship that he is liable, under guarantee taken from Messrs. , the agents of the vessel, for all expenses on behalf of myself and Mr. , leadsman, together with compensation at the rate of Rs. 10 per diem to myself and Rs. 5 per diem to Mr. , leadsman, until { my / our } return to the cruising-station or the port of Calcutta.

Dated the day of 18 . *Pilot of the*

C.—Form of Certificate to be forwarded to the Port Officer, Calcutta, under Rule 1.

I hereby certify that Mr. , pilot of the , and Mr. , leadsman of the , arrived at this port on board the , that they landed on the 18 , and will avail themselves of the first opportunity to return to Calcutta.

Dated the day of 18 . *Port Officer of*

CHAPTER XXI.—SIGNS SHOWING FORCE OF WIND AND STATE OF THE WEATHER, TO BE ENTERED IN LOG-BOOKS.

F.

Figures to denote the force of the wind.

0, Denotes calm.		
1, Light air ...	Just sufficient to give ...	Steerage way.
2, Light breeze ...	With which a well-conditioned ship, under all sails and clean-full, would go in smooth water from	1 to 2 knots.
3, Gentle breeze ...		3 „ 4 „
4, Moderate breeze...		5 „ 6 „
5, Fresh breeze ...	In which the same ship could just carry close-hauled,	Royals, &c.
6, Strong breeze ...		Single reefs, &c., top-gallant sails.
7, Moderate gale ...		Double reefs, jib, &c.
8, Fresh gale ...		Treble reefs, courses, &c.
9, Strong gale ...		Close reefs and courses.
10, Whole gale ...	With which she could only bear	Close reefed maintop sail and reefed fore-sail.
11, Storm ...	With which she could be reduced to	Storm staysails.
12, Hurricane ...	To which she could show ...	No canvas.

Letters to denote the state of the weather.

B. Denotes blue sky, weather clear, or hazy atmosphere.
C. Cloudy, *i.e.* detached opening clouds.
D. Drizzling rain.
F. Fog. * F Thick fog.
G. Gloomy dark weather.
H. Hail.
L. Lightning.
M. Misty or hazy, so as to interrupt the view.
O. Overcast, *i. e.* the whole sky covered with one impervious cloud.
P. Passing showers.
Q. Squally.
R. Rain, *i. e.* continuous rain.
S. Snow.
T. Thunder.
U. Ugly threatening appearance in the weather.
V. Visibility of distant objects. Whether the sky be cloudy or not.
W. Wet dew.

Examples.

B, C, M, Blue sky with detached opening clouds, but hazy round the horizon.
G, V, Gloomy dark weather, but distant objects remarkably visible.
Q, P, D, L, T.† Very hard squalls and showers of drizzle accompanied by lightning with very heavy thunder.

Chapter XXII.—Schedule of offences and punishments prepared in accordance with Section 17, Act XII of 1859.

Offences through Unskilfulness, Neglect, &c., when in Pilotage Charge.

1. Any pilot who, when in pilotage charge of any vessel, shall, through unskilfulness, negligence, or other default, allow such vessel to ground or cause injury, by collision or otherwise, to the vessel in his charge or to any other vessel, shall be punished by suspension or reduction of pay for a term not exceeding twelve months, or by a reduction either in steps or grade.

2. If in any case the loss of any vessel is the consequence of any of the offences above described, the pilot shall also be liable to dismissal.

3. Any pilot who shall unnecessarily cut or slip, or cause to be cut or slipped, any cable belonging to any vessel under his pilotage charge shall be punished by suspension or reduction of pay for a term which may extend to three months.

4. Any pilot who shall, either through unskilfulness, neglect, or other default, cause damage to any floating light vessel, buoy, or beacon, shall be punished by suspension or reduction of pay for a term which may extend to three months, and shall also be liable to make good the damage caused.

5. Any pilot who shall be asleep when in pilotage charge of any vessel under weigh, or who shall fail to attend, whether by day or by

* Before any letter denotes an extraordinary degree.
† By the combination of these letters all the ordinary phenomena of the weather may be recorded with certainty and brevity.

night, to the swinging of the vessel of which he may be in pilotage charge, shall be punished with suspension or reduction of pay for a term not exceeding six months.

6. Any pilot who shall be drunk when in pilotage charge of any vessel shall be punished by dismissal.

Offences against Discipline or Departmental Rules.

7. Any pilot who shall refuse to take pilotage charge of a vessel when ordered to do so by competent authority, or who shall improperly throw up pilotage charge of any vessel, or who shall quit the vessel of which he is in pilotage charge without the consent of the master or commanding officer before the service for which he was engaged has been performed, shall be punished with suspension or reduction of pay for a period which may extend to twelve months, or by dismissal.

8. Any pilot who shall be drunk on board a pilot-vessel, or when on general duty (otherwise than in pilotage charge), shall be punished with suspension or reduction of pay for a term which may extend to twelve months, and for any repetition of the offence shall be liable to dismissal.

9. Any pilot who shall be guilty of disobedience of orders shall be punished with suspension or deduction of pay for a term which may extend to twelve months, or by reduction in steps or grade, or by dismissal.

10. Any pilot who shall be found guilty of insubordination or disrespect to a superior officer shall be punished with suspension or reduction of pay for a term which may extend to six months.

11. Any pilot who shall assault his superior officer when on duty may be punished, in addition to any penalty to which he may be liable under the Penal Code, by dismissal, or by suspension or reduction of pay for a term not exceeding twelve months, or by reduction of grade.

12. Any pilot who shall, when in command of a pilot-vessel, neglect to attend to the proper maintenance, discipline, or navigation of such vessel, or any pilot who shall wilfully waste, destroy, or misapply public stores and property, shall be punished with suspension or reduction of pay for a term which may extend to twelve months, or by dismissal.

13. Any pilot who shall be guilty of any breach of rules duly promulgated by proper authority for his guidance as a pilot, and the punishment for which is not already laid down in this schedule, shall be punished with suspension or reduction of pay for a term not exceeding twelve months, or by reduction in steps or grade, or by dismissal.

Offences containing an element of moral turpitude.

14. Any pilot who shall wilfully make a false report of the circumstances attending the grounding, collision, injuring, or loss of any vessel, or of the stores of any vessel, or on any point connected with his duty as a pilot, or who shall make, or cause to be made, a

false muster-roll, or a false entry in the log-book of any pilot-vessel, or who shall wilfully neglect to make the proper entries in the log-book of such vessel when he is in duty bound to make them, shall be punished with suspension for a term not exceeding twelve months or by dismissal.

15. Any pilot who shall commit, or connive at, any fraud or offence against the laws relating to customs or excise, or who shall knowingly connive at the escape of any person against whom there has issued a warrant of arrest, shall be punished with suspension for a term not exceeding twelve months, or by dismissal.

N.B.—Reduction of pay is never to exceed one-half of the monthly salary or earnings.

The reduction of pay of an officer of the Pilot Service, free list or licensed, when undergoing any of the punishments for which "reduction of pay" is inflicted under this schedule, shall be the half of his earnings for the period for which he is punished.

T. A. G.—Reg. No. 5897J—400—18-2-81.

APPENDIX A.

LLOYD'S RULES.

TONNAGE FOR REGULATING THE SCANTLINGS AND EQUIPMENT (AS REGARDS ANCHORS, CHAINS, &c.) OF WOOD AND COMPOSITE VESSELS.

SECTION 32.—In flush-decked vessels having either one, two, or three decks (not being spar or awning-decked), the tonnage under the upper deck, *without abatement of the tonnage of the space for the crew, or for the propelling power of steam vessels* is to regulate all the scantlings of the hull, and also the equipment of the vessel, as regards anchors, chains, warps, &c.

In vessels having a *raised quarter-deck*, or a poop, or top-gallant forecastle, or deck-houses, or awning-deck, or spar-deck, the total tonnage below the tonnage-deck is to regulate the scantlings of the hull; but the register tonnage, as cut on the main beam of sailing vessels and of steam vessels, *with the addition of the tonnage of the space required for propelling power*, is to regulate the equipment.

But in vessels where the tonnage of the erections above the tonnage deck is less than that allowed for crew space, *then* the *difference* between the tonnage of these erections and the tonnage of the space allowed for crew is to be *added* to the register tonnage, cut on the main beam, for the tonnage that is to regulate the equipment.

SECTION 72.—Every ship is to be provided with anchors, cables, &c. of approved quality, properly tested a at *public machine*, in number and length as set forth in the Table No. 22, annexed. (*See also* section 32.)

No. 22. CHAINS AND ANCHORS

Minimum Weights of Anchors, ex. Stock; Sizes and Lengths of Chains, and Acts. Also Sizes and Lengths of Hawsers and Warps. The Anchors

Numbers for iron vessels—see footnote (a).	Ship's tonnage.	Anchors (c). Number. Bowers.	Stream.	Kedge.	Bowers (b). Ex Stock. Cwts.	Tons.	Collective weight. Cwts.	Weight. Ex. Stock. Stream. Cwts.	Tons.*	Kedge. Cwts.	Tons.*	Spl. Stoke. Cwts.	Tons.*
	Tons.												
1000	30	2	1	1	3½	4½	7	½	—	½	—	—	—
2000	75	2	1	1	4½	6½	8½	1½	—	½	—	—	—
3000	100	2	1	1	5	7½	10	1½	2½	½	—	—	—
5000	175	2	1	1	5½	8	11½	1½	3½	½	—	—	—
6000	150	2	1	1	6½	8½	13	2	4½	1	—	—	—
4000	175	2	1	1	7½	9½	15	2½	4½	1	—	—	—
8000	200	2	1	1	8½	10½	23	3½	5	1½	—	—	—
9000	250	2	1	1	10	12	28½	3½	6½	1½	1½	—	—
0000	300	2	1	1	12	16½	34	4	6½	2	1	—	—
7000	350	2	1	1	13½	18½	38½	4½	7½	2½	1	1½	—
8000	400	2	1	1	15½	21½	45½	5½	8½	2½	1½	1½	2½
9000	450	2	1	1	17½	24½	51½	6½	9½	3	1½	2	3½
0000	500	2	1	1	19	29	61	6½	9½	3½	2	2½	3½
10000	600	2	1	1	21	31½	69	7½	10½	3½	2½	3	4½
12000	700	2	1	1	23½	34½	77	8	11½	4	2½	3½	5
13000	800	2	1	1	25½	38½	82½	8½	12½	4½	3½	3½	5½
14000	900	2	1	1	27½	40½	79	9½	13½	4½	3½	4½	6½
15000	1000	2	1	1	30	43½	85½	10	14½	4½	3½	5	7
17000	1050	2	1	1	32	50½	91	10½	15½	5½	3½	5	8
19000	1400	2	1	1	34	51½	97	10½	15½	5½	3½	5½	8
21000	1600	2	1	1	36½	55½	103	11½	16½	5½	3½	5½	8½
23000	1800	2	1	1	38	58½	108½	11½	17½	5½	3½	6	9½
25000	2000	2	1	1	40	62½	114	12	18½	6	3½	6	9½
27000	2200	2	1	1	42	67½	119½	12½	19½	6½	3½	6½	10½
29000	2400	2	1	1	45	69½	125½	13½	19½	7½	3½	7½	10½

(a) By section 29 of the Rules for the building and classification of *Iron Ships* it is provided that "The equipment is to be regulated by the number produced by the sum of the measurements of the half moulded breadth of the vessel amidships, her depth from the upper part of keel to the top of the upper-deck beams, and the girth of her half midship section to the same height, multiplied by her length, for a one, two, and three-decked vessel and for a spar-decked vessel."

For a vessel with a poop, top-gallant forecastle, or a raised quarter-deck, the equipment number is to be increased one 20th for each deck beyond that which it would be if she were flush-decked.

(b) In order to meet the requirements of different trades, the weights of anchors as given in the above table may be modified as under:—

Where two bower anchors only are required, one of them may be 7½ per cent. lighter than the weight set forth above, provided the collective weight of the two anchors is equal to that given in the table.

Where three bower anchors are required, one of them may be 15 per cent., and another 7½ per cent. lighter than the weight set forth above, provided the collective weight of the three anchors is equal to that given in the table, but in no case may the best bower anchor be lighter than prescribed in the table.

FOR *SAILING* VESSELS.

(For steam vessels see other side.)

the proof strain to which they are to be tested per Chain Cables and Anchors and the links of the Chains to be of unexceptionable form and proportions.

STUD CHAIN CABLES. (c) (d)				Ship's tonnage.	Numbers for steam vessels—see footnotes (a).	HAWSERS AND WARPS.					
						Stream chain. (c)		Towlines. (c)		Warps, 90 fathoms of each.	
Minimum size.	Proved to Admiralty test.	Breaking test.	Length.			Fathoms.	Inch.	Fathoms.	Inch.	Inch.	Inch.
Inch	Tons.	Tons.	Fathms.	Tons.		Fathms.	Inch.	Fathms.	Inch.	Inch.	Inch.
⅝	8½	12	120	50	1000	45	⅞	75	8	3	—
¾	10	15	120	70	2000	45	⅞	75	8½	3	—
⅞	11	17½	135	100	3100	45	⅞	75	9	3½	—
1	12½	20	165	125	3850	45	⅞	75	9½	4	—
1⅛	15½	23½	165	156	4500	45	⅞	75	9½	4	—
1¼	18	27	165	175	4700	45	⅞	75	9½	4	—
1⅜	20½	30½	165	206	5150	45	⅞	75	9½	4½	—
1½	23½	34½	180	250	5600	45	⅞	75	9½	4½	—
1⅝	27	38	195	300	6800	60	⅞	75	9	5	—
1¾	30½	42	210	350	7800	60	⅞	75	9	5½	—
1⅞	34	46½	210	400	8700	60	⅞	75	9	6	—
2	37	50½	210	450	8900	60	⅞	75	9	6½	—
2⅛	41	55	240	500	9600	60	⅞	75	9½	7	—
2¼	44½	59½	240	600	10800	60	⅞	90	10	7	—
2½	48½	65½	270	700	12000	60	⅞	90	10	8	3
2¾	52½	70½	270	800	13200	75	⅞	90	10½	9	3½
3	57½	77½	270	900	14400	75	⅞	90	10½	9	3½
3¼	62½	83½	270	1000	15600	75	⅞	90	11	9½	3
3½	68	90½	270	1200	17800	75	1	90	11	10	3
3¾	73½	97½	270	1400	19800	75	1	90	11	10½	3½
4	79	105½	270	1600	21600	75	1⅛	90	12	11	4
4¼	85½	113½	270	1800	23400	75	1⅛	90	12	11	4
4½	92	122½	270	2000	25200	90	1⅛	90	12	12	4
4¾	98½	130½	270	2200	26900	90	1⅛	90	12	12	4
5	105½	139½	300	2500	28400	90	1⅛	90	12	12	4

All anchor stocks must be of acknowledged and approved description.

(b) All anchors, including stream and kedge anchors, exceeding 168lbs. in weight ex. stock, to be tested according to the requirements of the Act of Parliament, and the certificates of test produced.

(c) The chain cables and stream chains to be tested in all cases according to the requirements of the Act of Parliament, and the certificates of test produced.

(d) Unstudded close-link chains will be admitted as cables, if proved to *two-thirds* the test required for stud-link chains for the towlin strain, and 100 per cent. above the *towlin* strain for the *breaking* strain.

(e) Steel wire hawsers will be accepted in lieu of hempen towlines, provided that in the first place the size and quality be in every instance submitted to, and be approved by, the Committee.

* The tests of anchors in this table are approximate tests, or as near the Statutory tests as can be expressed in tons and aliquot parts of tons.

No. 22. CHAINS AND ANCHORS

Minimum Weights of Anchors, ex. Stock; Sizes and Lengths of Chains, and Ropes. Also Sizes and Lengths of Hawsers and Warps. The Anchors

Numbers for 1853 vessels—see footnote (a).	Ship's tonnage.	Anchors. (c)															
		Number.			Weight.												
					Bowers. (b)				Ex. Stock.								
		Bowers.	Sheets.	Kedges.	Ex. Stock.	Test.*	Collective weights.	Stream.	Test.*	Kedge.	Test.*	Sod Kedge.	Test.*
	Tons.				Cwts.	Tons.	Cwts.	Cwts.	Tons.	Cwts.	Tons.	Cwts.	Tons.
2750	75	2	1	1	5½	5½	7	3	—	4	—	—	—
3750	112	2	1	1	4½	6½	8½	4½	—	4	—	—	—
4650	150	2	1	1	6	7½	10	4½	3½	—	—	—	—
5450	185	2	1	1	7½	8	11½	4½	3½	—	—	—	—
6150	225	2	1	1	8½	8½	13	5	4½	1	—	—	—
6840	262	2	1	1	9½	9½	14½	5½	4½	1	—	—	—
7400	300	2	1	1	8½	10½	16	5½	5	1½	—	—	—
8070	375	2	1	2	10	12	28	6½	6½	1½	4½	1	—
8770	450	2	1	2	12	13½	31	8	6½	2	4½	1	—
10200	525	2	1	2	13½	15½	36	8½	7½	2½	5	1½	—
11740	600	2	1	2	15½	16½	43	9	7½	3	5	1½	3½
12820	675	2	1	2	16½	18	47	9½	7½	3½	5½	1½	3½
13400	750	2	1	2	18	19	51½	10	8½	3½	6	1½	3½
15120	900	2	1	2	21	21½	60	11	9½	4½	6½	1½	4½
16750	1050	2	1	2	23½	23½	67	9	10½	4	7½	2	4½
18250	1200	2	1	2	25½	25½	72½	8½	10½	4½	8½	2½	4½
19780	1350	2	1	2	27½	26½	79	9½	10½	4½	9½	2½	4½
21180	1500	2	1	2	30	28½	85½	9½	11½	4½	10	2½	5
24250	1800	2	1	2	32	30½	91	10½	12½	5	11	2½	5
27140	2100	2	1	2	34	31½	97	10½	13½	5½	11½	2½	5
30400	2400	2	1	2	36½	33½	104	11½	13½	5½	12½	2½	5½
32520	2700	2	1	2	38	35½	109½	11½	14½	6	13½	2½	5½
35450	3000	2	1	2	40	35½	114	12	15½	6	14½	2	5½
37000	3300	2	1	2	41½	36½	120½	12½	14½	6½	15½	2½	5½
40000	3600	4	1	2	43	37½	125	14	15	7	16½	2½	5½
42400	3900	4	1	2	45	38½	127½	15½	16½	7½	16½	2½	5½
51000	5000	4	1	2	46½	39½	170	16½	18	8½	19½	4	6½

(a) By section 35 of the Rules for the building and classification of *Iron Ships* it is provided that "The equipment is to be regulated by the number produced by the sum of the measurements of the half moulded breadth of the vessel amidships, her depth from the upper part of keel to the top of the upper deck beams, and the girth of her half midship section to the same height, multiplied by her length, for a one, two, and three-decked vessel and for a spar-deck vessel, awning-deck vessel, or a vessel having a continuous shade deck."

For a vessel with a partial sawing deck, poop, top-gallant forecastle, enclosed bridge-house, or a raised quarter-deck, the equipment number to be increased *one-fifteenth* beyond that which it would be if she were flush-decked, when the united lengths of such erections does not exceed one-fourth the length of the vessel, and when this proportion of the length is exceeded, the equipment number to be increased *one-tenth* beyond that which it would be if she were flush-decked.

(b) In order to meet the requirements of different trades, the weights of anchors as given in the above table may be modified as under:—

Where two bower anchors only are required, one of them may be 7½ per cent. lighter than the weight set forth above, provided the collective weight of the two anchors is equal to that given in the table.

Where three bower anchors are required, one of them may be 15 per cent. and another 7½ per cent. lighter than the weight set forth above, provided the collective weight of the three anchors is equal to that given in table, but in no case may the best bower be lighter than prescribed in table.

FOR *STEAM* VESSELS.

(For sailing vessels see other side.)

the proof strain to which they are to be tested per Chain Cables and Anchors and the links of the Chains to be of unexceptionable form and proportions.

Stud Chain Cables. (c) (d)				Ship's tonnage.	Numbers for iron vessels—see footnote (a).	Hawsers and Warps.					
						Stream chain. (c)		Towline. (c)		Warps. 90 fathoms of each.	
Minimum size.	Proved to Admiralty test.	Breaking test.	Length.			Fthms.	Inch.	Fthms.	Inch.	Inch.	Inch.
Inch.	Tons.	Tons.	Fthms.	Tons.		Fthms.	Inch.	Fthms.	Inch.	Inch.	Inch.
11	8½	12½	120	73	2780	45	⅝	75	5½	3	←
11½	10½	15½	120	112	3550	45	⅞	75	6	4	←
12	11½	17½	135	170	4630	45	⅞	75	6	4	←
12½	13½	20½	165	193	5420	45	1	75	6½	4	←
13	15½	23½	165	222	6130	45	1	75	7	5	←
13½	18	27	165	252	6940	45	1	75	7½	5½	←
14	20½	30½	165	299	7400	60	1	75	7½	6	←
14½	22½	34	165	375	8670	60	1	75	8½	6½	←
15	25	38	165	450	9770	60	1	75	9	7	←
15½	28½	42½	210	575	10700	60	1	75	9½	7	4
16	31	46½	210	680	11740	60	1	75	10	8	5
16½	34	51	240	675	12600	60	1	75	10	8	5
17	37½	55½	240	750	13450	60	1	90	10	9	5½
17½	40½	59½	240	900	15120	75	1	90	10½	9	5½
18	43½	64½	270	1050	16730	75	1	90	10½	9½	6
18½	47½	69½	270	1200	18300	75	1	90	11	10	6
19	51½	74½	270	1350	19780	75	1¼	90	11	10½	6½
19½	55½	79½	270	1500	21260	75	1¼	90	11	11	7
20	59½	85½	270	1800	24220	75	1¼	90	12	11	7
20½	63½	90½	270	2100	27140	75	1¼	90	12	11	7½
21	67½	94½	300	2400	30000	90	1¼	90	12	12	8
22	72	103½	300	2700	32820	90	1¼	90	12	12	8
22½	76½	107½	300	3000	35450	90	1¼	90	12	12	8
23	81½	112½	300	3500	39600	90	1¼	90	12	12	8
23½	86½	120½	300	4000	43900	90	1¼	90	12	12	8
24	91	127½	300	4500	47400	90	1¼	90	12	12	9
24½	96½	134½	300	5000	51000	90	1¼	90	12	12	9

Where four lower anchors are required, one may be 15 per cent. and another 7½ per cent. lighter than the weight set forth above, provided the collective weight of the four anchors is equal to that given in the table, but two at least of the lower anchors must not be lighter than required by the table.

All anchor stocks must be of acknowledged and approved description.

(*a*) All anchors, including stream and kedge anchors, exceeding 168lbs. in weight, ex. stock, to be tested according to the requirements of the Act of Parliament, and the certificates of test produced.

(*b*) The chain cables and stream chains to be tested in all cases according to the requirements of the Act of Parliament, and the certificates of test produced.

(*c*) Untested close-link chains will be admitted as cables if proved to *two-thirds* the test required for stud-link chains, for the *tensile* strain, and 100 per cent. above the *tensile* strain for the breaking strain.

(*d*) *Steel wire hawsers* will be accepted in lieu of hempen towlines, provided that in the first place the size and quality be in every instance submitted to, and be approved by, the Committee.

* The tests of anchors in this table are approximate tests, or as near the Statutory tests as can be expressed in tons and aliquot parts of tons.

APPENDIX B.

Report of Casualty.

No. in Wreck Register.	a Name. b Port of registry. c Official No.	Number of crew.	Cargo.	a Port sailed from. b Port bound to.	a Date of casualty. b Place of casualty.	Number of lives lost.	a Nature of casualty. b From whom the particulars were obtained.
	a_____		_____	a_____	a_____		a_____
	b_____		_____				
	c_____		_____	b_____	b_____		b_____

APPENDIX C.

FORM No. 19, UNDER THE EMIGRATION RULES.

(Original.)

Statement of the Crew and Passengers (natives of India) proceeding in the , bound to

Native crew.	Number.
Serangs, lascars, &c.	
Commander and officers' servants ...	
Passengers' servants	

Native Passengers.

Names.	Age.	Caste.	Occupation.

CALCUTTA,

The *of*

Commander

Protector of Emigrants.

MEMORANDUM.

UNDER the orders of Government, the officer in pilotage charge of the

is to receive this document from the Preventive Officer on the latter quitting the ship; and should any attempt be made to take on board natives of India not included in this statement, the vessel is to be stopped, and the circumstance reported. Document is to be returned to

Protector of Emigrants.

Reg. No. 7595 J—400—18-2-81.